

Prof. Giulio Cerullo - Publications list

1. S. De Silvestri, P. Laporta, V. Magni, G. Valentini, **G. Cerullo**, "Comparative analysis of Nd:YAG unstable resonators with super-gaussian variable reflectance mirrors", Opt. Comm. **77**, 179-184 (1990) (ISSN: 0030-4018).
2. K. K. Haase, A. Baumbach, M. Wehrmann, S. Duda, **G. Cerullo**, B. Rueckle, E. Steiger, K.R. Karsch, "Potential use of holmium lasers for angioplasty: evaluation of a new solid-state laser for ablation of atherosclerotic plaque", Lasers Surg. Med. **11**, 232-237 (1991) (ISSN: 0196-8092).
3. **G. Cerullo**, K.K. Haase, B. Rueckle, E. Schulz, M. Wehrmann and K.R. Karsch, "Holmium and Thulium lasers: comparison of solid state systems with potential applications for laser angioplasty", Lasers Med. Science **7**, 407-413 (1992) (ISSN: 0268-8921).
4. V. Magni, **G. Cerullo**, S. De Silvestri, "High-accuracy fast Hankel transform for optical beam propagation", J. Opt. Soc. Am. A **9**, 2031-2033 (1992) (ISSN: 1084-7529).
5. **G. Cerullo**, S. De Silvestri, V. Magni, "High efficiency, 40 W cw Nd:YLF laser with large TEM₀₀ mode", Opt. Comm. **93**, 77-81 (1992) (ISSN: 0030-4018).
6. V. Magni, **G. Cerullo**, S. De Silvestri, "ABCD matrix analysis of propagation of gaussian beams through Kerr media", Opt. Comm. **96**, 348-355 (1993) (ISSN: 0030-4018).
7. J. Koetke, S. Kueck, K. Petermann, G. Huber, **G. Cerullo**, M. Danailov, V. Magni, L.J. Qian, O. Svelto, "Quasi-continuous wave laser operation of Cr⁴⁺-doped Y₂SiO₅ at room temperature", Opt. Comm. **101**, 195-198 (1993) (ISSN: 0030-4018).
8. V. Magni, **G. Cerullo**, S. De Silvestri, "Closed form gaussian beam analysis of resonators containing a Kerr medium for femtosecond lasers", Opt. Comm. **101**, 365-370 (1993) (ISSN: 0030-4018).
9. **G. Cerullo**, S. De Silvestri, V. Magni, O. Svelto, "Output power limitations in CW single transverse mode Nd:YAG lasers with a rod of large cross-section", Opt. Quantum Electr. **25**, 489-500 (1993) (ISSN: 0306-8919).
10. V. Magni, **G. Cerullo**, S. De Silvestri, O. Svelto, L.J. Qian, M. Danailov, "Intracavity frequency doubling of a cw high-power TEM₀₀ Nd:YLF laser", Opt. Lett. **18**, 2111-2113 (1993) (ISSN: 0146-9592).
11. **G. Cerullo**, S. De Silvestri, P. Laporta, S. Longhi, V. Magni, S. Taccheo, O. Svelto, "Continuous-wave mode locking of a bulk erbium-ytterbium glass laser", Opt. Lett. **19**, 272-274 (1994) (ISSN: 0146-9592).
12. **G. Cerullo**, S. De Silvestri, V. Magni, L. Pallaro, "Resonators for Kerr-lens mode-locked femtosecond Ti:sapphire lasers", Opt. Lett. **19**, 807-809 (1994) (ISSN: 0146-9592).
13. M. B. Danailov, **G. Cerullo**, V. Magni, D. Segala, S. De Silvestri, "Nonlinear mirror mode locking of a cw Nd:YLF laser", Opt. Lett. **19**, 792-794 (1994) (ISSN: 0146-9592).

14. **G. Cerullo**, S. De Silvestri, V. Magni, "Self-starting Kerr-lens mode-locking of a Ti:sapphire laser", *Opt. Lett.* **19**, 1040-1042 (1994) (ISSN: 0146-9592).
15. S. Longhi, **G. Cerullo**, S. Taccheo, V. Magni, P. Laporta, "Experimental observation of transverse effects in microchip solid-state lasers", *Appl. Phys. Lett.* **65**, 3042 (1994) (ISSN: 0003-6951).
16. **G. Cerullo**, M. Danailov, S. De Silvestri, P. Laporta, V. Magni, D. Segala, S. Taccheo, "A diode-pumped nonlinear mirror mode-locked Nd:YAG laser", *Appl. Phys. Lett.* **65**, 2392 (1994) (ISSN: 0003-6951).
17. V. Magni, **G. Cerullo**, S. De Silvestri, A. Monguzzi, "Astigmatism in gaussian beams self-focusing and in resonators for Kerr lens mode-locking", *J. Opt. Soc. Am. B* **12**, 476 (1995) (ISSN: 0740-3224).
18. **G. Cerullo**, S. De Silvestri, A. Monguzzi, D. Segala, V. Magni, "Self-starting mode-locking of a CW Nd:YAG laser using cascaded second order nonlinearities", *Opt. Lett.* **20**, 746 (1995) (ISSN: 0146-9592).
19. **G. Cerullo**, V. Magni, A. Monguzzi, "Group velocity mismatch compensation in cw lasers mode-locked by second order nonlinearities", *Opt. Lett.* **20**, 1785 (1995) (ISSN: 0146-9592).
20. **G. Cerullo**, A. Dienes, V. Magni, "Space-time coupling and collapse threshold for femtosecond pulses in dispersive nonlinear media ", *Opt. Lett.* **21**, 65 (1996) (ISSN: 0146-9592).
21. **G. Cerullo**, C.J. Bardeen, Q. Wang, C. V. Shank, "High power chirped pulse excitation of molecules in solution", *Chem. Phys. Lett.* **262**, 362 (1996) (ISSN: 0009-2614).
22. U. Banin, **G. Cerullo**, A. Guzelian, C.J. Bardeen, C.V. Shank , A.P. Alivisatos, " Quantum confinement and ultrafast dephasing dynamics in InP nanocrystals", *Phys. Rev. B* **55**, 7059 (1997) (ISSN: 1098-0121).
23. C. J. Bardeen, **G. Cerullo**, C.V. Shank, "Temperature dependent electronic dephasing of molecules in polymers probed in the range 30 K- 300 K", *Chem. Phys Lett.* **280**, 127 (1997) (ISSN: 0009-2614).
24. N. K. Damrauer, **G. Cerullo**, A. Yeh, T.R. Boussie, C. V. Shank, J.K. McCusker, "Femtosecond dynamics of excited-state evolution in $[\text{Ru}(\text{bpy})_3]^{2+}$ ", *Science* **275**, 54 (1997) (ISSN: 0036-8075).
25. **G. Cerullo**, M. Nisoli, S. De Silvestri, "Generation of 11 fs pulses tunable across the visible by optical parametric amplification", *Appl. Phys. Lett.* **71**, 3616 (1997) (ISSN: 0003-6951).
26. M. Zavelani-Rossi, **G. Cerullo**, V. Magni, "Mode-locking by cascading of second-order nonlinearities", *IEEE J.Q.E.* **34**, **61** (1998) (ISSN: 0018-9197).
27. G. Lanzani, **G. Cerullo**, S. Stagira, S. De Silvestri, F. Garnier, "Ultrafast charge separation in β -substituted sexithiophene amorphous films", *Phys. Rev. B* **58**, 7740 (1998) (ISSN: 1098-0121).

28. **G. Cerullo**, M. Nisoli, S. Stagira, S. De Silvestri, G. Lanzani, W. Graupner, E.J.W. List, G. Leising, "Ultrafast energy-transfer dynamics in a blend of electroluminescent conjugated polymers", *Chem. Phys. Lett.* **288**, 561 (1998) (ISSN: 0009-2614).
29. **G. Cerullo**, S. Stagira, M. Nisoli, S. De Silvestri, G. Lanzani, G. Kränzelbinder, W. Graupner, G. Leising, "Excited-state dynamics of poly(para-phenylene)-type ladder polymers at high photoexcitation density", *Phys. Rev. B* **57**, 12806 (1998) (ISSN: 1098-0121).
30. S. Stagira, M. Nisoli, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, G. Lanzani, W. Graupner, G. Leising, "The role of amplified spontaneous emission in the ultrafast relaxation dynamics of polymer films", *Chem. Phys. Lett.* **289**, 205 (1998) (ISSN: 0009-2614).
31. **G. Cerullo**, M. Nisoli, S. Stagira, S. De Silvestri, "Sub-8-fs pulses from an ultrabroadband optical parametric amplifier in the visible", *Opt. Lett.* **23**, 1283 (1998) (ISSN: 0146-9592).
32. W. Graupner, **G. Cerullo**, G. Lanzani, M. Nisoli, E.J.W. List, G. Leising, S. De Silvestri, "Direct observation of ultrafast field-induced charge generation in ladder-type Poly(Para-Phenylene)", *Phys. Rev. Lett.* **81**, 3259 (1998) (ISSN: 0031-9007).
33. T. Beninncori, G. Bongiovanni, C. Botta, **G. Cerullo**, G. Lanzani, A. Mura, L. Rossi, F. Sannicolò, R. Tubino, "Tuning of the excited-state lifetime by control of the structural relaxation in oligothiophenes", *Phys. Rev. B* **58**, 9082 (1998) (ISSN: 1098-0121).
34. A. T. Yeh, **G. Cerullo**, U. Banin, A. Mews, A.P. Alivisatos, C.V. Shank, "Dynamics of exciton localization in CdS/HgS quantum-dot quantum wells", *Phys. Rev. B* **59**, 4973 (1999) (ISSN: 1098-0121).
35. G. Lanzani, S. Stagira, **G. Cerullo**, S. De Silvestri, D. Comoretto, I. Moggio, G. Dellepiane, "Triplet exciton generation and decay in poydchd-s blends studied by femtosecond spectroscopy", *Chem. Phys. Lett.* **313**, 525 (1999) (ISSN: 0009-2614).
36. C. Zenz, **G. Cerullo**, G. Lanzani, W. Graupner, F. Meghdadi, G. Leising, S. De Silvestri, "Ultrafast photogeneration mechanisms of triplet states in para-Hexaphenyl", *Phys. Rev. B* **59**, 14336 (1999) (ISSN: 1098-0121).
37. **G. Cerullo**, G. Lanzani, M. Muccini, C. Taliani, S. De Silvestri, "Real time vibronic coupling dynamics in a prototypical conjugated oligomer", *Phys. Rev. Lett.* **83**, 231 (1999) (ISSN: 0031-9007).
38. **G. Cerullo**, S. De Silvestri, U. Banin, "Size dependent dynamics of coherent acoustic phonons in nanocrystal quantum dots", *Phys. Rev. B* **60**, 1928(1999) (ISSN: 1098-0121).
39. T. Virgili, D.G. Lidzey, D.D.C. Bradley, **G. Cerullo**, S. Stagira, S. De Silvestri, "An ultrafast spectroscopy study of stimulated emission in poly(9,9-dioctylfluorene) films and microcavities, *Appl. Phys. Lett.* **74**, 2767 (1999) (ISSN: 0003-6951).
40. **G. Cerullo**, G. Lanzani, M. Muccini, C. Taliani, S. De Silvestri, "Collective vibrational coherence in sexithiophene films", *Opt. Mat.* **12**, 383 (1999) (ISSN: 0925-3467).
41. G. Lanzani, **G. Cerullo**, S. Stagira, S. De Silvestri, F. Garnier, "Photexcited dark states in solid state sexithiophene", *J. Chem. Phys.* **111**, 6474 (1999) (ISSN: 0021-9606).

42. **G. Cerullo**, G. Lanzani, L. Pallaro, S. De Silvestri, "Femtosecond impulsive vibrational spectroscopy in conjugated polymers". *J. Mol. Struct.* **521**, 261 (2000) (ISSN: 0022-2860).
43. T. Benincori, G. Bongiovanni, C. Botta, **G. Cerullo**, G. Lanzani, A. Mura, F. Sannicolò, L. Rossi, R. Tubino, "Photoexcitations of bridged quaterthiophene in solution", *Synth. Met.* **101**, 522 (1999) (ISSN: 0379-6779).
44. G. Lanzani, S. De Silvestri, **G. Cerullo**, R. Muccini, C. Taliani, "Coherent vibrational dynamics in sexithiophene films", *Synth. Met.* **101**, 614 (1999) (ISSN: 0379-6779).
45. W. Graupner, **G. Cerullo**, G. Lanzani, M. Nisoli, E. List, G. Leising, S. De Silvestri, "Direct observation of ultrafast field-induced charge generation in organic semiconductors", *Synth. Met.* **101**, 614 (1999) (ISSN: 0379-6779).
46. C. Zenz, W. Graupner, **G. Cerullo**, G. Lanzani, M. Nisoli, E.J.W. List, F. Meghdadi, G. Leising, S. De Silvestri, "Field-assisted femtosecond pump-probe measurements on conjugated systems", *Opt. Mat.* **12**, 273 (1999) (ISSN: 0925-3467).
47. **G. Cerullo**, W. Graupner, G. Lanzani, M. Nisoli, E.J.W. List, S. Stagira, S. De Silvestri, G. Leising, "Ultrafast excitation energy transfer in a blend of light-emitting conjugated polymers", *Synth. Met.* **101**, 306 (1999) (ISSN: 0379-6779).
48. W. Graupner, G. Lanzani, **G. Cerullo**, C. Zenz, E.J.W. List, G. Leising, S. De Silvestri, "Electric field-assisted femtosecond pump-probe spectroscopy in organic light emitting diodes", *Synth. Met.* **101**, 277 (1999) (ISSN: 0379-6779).
49. C. Zenz, **G. Cerullo**, G. Lanzani, W. Graupner, F. Meghdadi, S. De Silvestri, G. Leising, "Ultrafast photoexcitations in para-hexaphenyl", *Synth. Met.* **101**, 660 (1999) (ISSN: 0379-6779).
50. **G. Cerullo**, M. Nisoli, S. Stagira, S. De Silvestri, G. Tempea, F. Krausz, K. Ferencz, "Mirror-dispersion-controlled sub-10-fs optical parametric amplifier tunable in the visible", *Opt. Lett.* **24**, 1529 (1999) (ISSN: 0146-9592).
51. E. Priori, **G. Cerullo**, M. Nisoli, S. Stagira, S. De Silvestri, P. Villloresi, L. Poletto, P. Ceccherini, C. Altucci, R. Bruzzese, C. de Lisio, "Non-adiabatic three-dimensional model of high order harmonic generation in the few-optical cycle regime", *Phys. Rev. A* **61**, 063801(2000) (ISSN: 1050-2947).
52. **G. Cerullo**, G. Lanzani, S. De Silvestri, H.J. Egelhaaf, L. Lüer, D. Oelkrug, "Primary photoexcitations in oligophenylenevinylene thin films", *Phys. Rev. B* **62**, 2429 (2000) (ISSN: 1098-0121).
53. M. Nisoli, S. Stagira, **G. Cerullo**, S. De Silvestri, O. Svelto, P. Ceccherini, L. Poletto, G. Tondello, P. Villloresi, C. Altucci, R. Bruzzese, C. de Lisio, "Spectral analysis of high order harmonics generated by 30-fs and sub-10-fs laser pulses", *Appl. Phys. B* **70**, S215 (2000) (ISSN: 0946-2171).
54. P. Villloresi, P. Ceccherini, L. Poletto, G. Tondello, C. Altucci, R. Bruzzese, C. de Lisio, M. Nisoli, S. Stagira, **G. Cerullo**, S. De Silvestri, O. Svelto, "Spectral features and modeling of

high-order harmonics generated by sub-10-fs pulses”, *Phys. Rev. Lett.* **85**, 2494 (2000) (ISSN: 0031-9007).

55. **G. Cerullo**, M. Nisoli, S. Stagira, S. De Silvestri, G. Tempea, F. Krausz, K. Ferencz, “Mirror-dispersion-controlled OPA: a compact tool for sub-10-fs spectroscopy in the visible”, *Appl. Phys. B* **70**, S253 (2000) (ISSN: 0946-2171).
56. G. Lanzani, C. Zenz, **G. Cerullo**, W. Graupner, G. Leising, U. Scherf, S. De Silvestri, “Femtosecond photovoltage excitation cross-correlation on a ladder-type polymer”, *Synth. Met.* **111-112**, 493 (2000) (ISSN: 0379-6779).
57. C. Altucci, R. Bruzzese, C. de Lisio, M. Nisoli, **G. Cerullo**, S. Stagira, S. De Silvestri, O. Svelto, A. Boscolo, P. Ceccherini, L. Poletto, G. Tondello, and P. Villoresi, “Features of high-order harmonics generation in the 30 fs and the sub-10-fs regimes”, *J. Opt. A: Pure Appl. Opt.* **2**, 289-293 (2000) (ISSN: 1464-4258).
58. **G. Cerullo**, G. Lanzani, M. Nisoli, E. Priori, S. Stagira, M. Zavelani-Rossi, O. Svelto, L. Poletto, P. Villoresi, C. Altucci, C. de Lisio, “Ultra-fast spectroscopy and extreme nonlinear optics by few-optical-cycle laser pulses”, *Appl. Phys. B* **71**, 779 (2000) (ISSN: 0946-2171).
59. **G. Cerullo**, S. Stagira, M. Zavelani-Rossi, S. De Silvestri, T. Virgili, D.G. Lidzey, D.D.C. Bradley, “Ultrafast Förster transfer dynamics in tetraphenylporphyrin doped poly(9,9-dioctylfluorene)”, *Chem. Phys. Lett.* **335**, 27 (2001) (ISSN: 0009-2614).
60. R.A.G. Cinelli, V. Tozzini, V. Pellegrini, F. Beltram, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, M. Tyagi, M. Giacca, “Coherent dynamics of photoexcited green fluorescent proteins”, *Phys. Rev. Lett.* **86**, 3439 (2001) (ISSN: 0031-9007).
61. Ch. Brabec, G. Zerza, **G. Cerullo**, S. De Silvestri, S. Luzzati, J.C. Hummelen, S. Sariciftci, “Tracing photoinduced electron transfer process in conjugated polymer/fullerene bulk heterojunctions in real time”, *Chem. Phys. Lett.* **340**, 232 (2001) (ISSN: 0009-2614).
62. P. Villoresi, P. Barbiero, L. Poletto, M. Nisoli, G. Cerullo, E. Priori, S. Stagira, C. De Lisio, R. Bruzzese, C. Altucci, “Study of few-optical-cycles generation of high-order harmonics”, *Las. Part. Beams* **19**, 41-45 (2001) (ISSN: 0263-0346).
63. G. Zerza, Ch. Brabec, **G. Cerullo**, S. De Silvestri, N.S. Sariciftci, “Ultrafast charge transfer in conjugated polymer-fullerene composites”, *Synth. Met.* **119**, 637 (2001) (ISSN: 0379-6779).
64. C. Zenz, G. Lanzani, **G. Cerullo**, W. Graupner, G. Leising, S. De Silvestri, “Dissociation of hot excitons in ladder-type polymer light emitting diodes”, *Chem. Phys. Lett.* **341**, 63 (2001) (ISSN: 0009-2614).
65. G. Lanzani, **G. Cerullo**, S. De Silvestri, G. Barbarella, G. Sotgiu, “Influence of the environment on the excited state deactivation in functionalized quinque-thienyls”, *J. Chem. Phys.* **115**, 1623 (2001) (ISSN: 0021-9606).
66. **G. Cerullo**, G. Lanzani, M. Zavelani-Rossi, S. De Silvestri, G. Barbarella, G. Sotgiu, “Influence of the environment on the excited state deactivation in functionalized quinque-thienyl in solution”, *Synth. Met.* **119**, 617 (2001) (ISSN: 0379-6779).

67. G. Lanzani, **G. Cerullo**, S. Stagira, S. De Silvestri, "Excited state dynamics of oligothiophenes studied by transient pump-probe spectroscopy", J. Photochem. Photobiol. A **144**, 13 (2001) (ISSN: 1010-6030).
68. **G. Cerullo**, S. De Silvestri, M. Nisoli, S. Sartania, S. Stagira, and O. Svelto, "Few-optical-cycle laser pulses: from high peak power to frequency tunability", IEEE J.S.T.Q.E. **6**, 948 (2001) (ISSN: 1077-260X).
69. **G. Cerullo**, G. Lanzani, M. Zavelani-Rossi, S. De Silvestri, "Early events of energy relaxation in β -carotene following sub-10-fs optical pulse excitation", Phys. Rev. B **63**, 241104 (2001) (ISSN: 1098-0121).
70. C. Altucci, R. Bruzzese, C. de Lisio, V. Tosa, P. Barbiero, L. Poletto, G. Tondello, P. Villoresi, M. Nisoli, S. Stagira S, **G. Cerullo**, S. De Silvestri, O. Svelto, "Beam divergence of high-order harmonics generated in the few-optical cycle regime", Journal de Physique IV **11**, 351-354 (2001) (ISSN: 1155-4339).
71. M. Zavelani-Rossi, **G. Cerullo**, S. De Silvestri, L. Gallmann, N. Matuschek, G. Steinmeyer, U. Keller, G. Angelow, V. Scheuer, T. Tschudi, "Pulse compression over 170-THz bandwidth in the visible using only chirped mirrors", Opt. Lett. **26**, 1155 (2001) (ISSN: 0146-9592).
72. G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, "Sub-10-fs time resolved study of excited state relaxation in *all-trans*- β -carotene", Synth. Met. **116**, 1 (2001) (ISSN: 0379-6779).
73. C. Zenz, G. Lanzani, **G. Cerullo**, W. Graupner, G. Leising, U. Scherf, S. De Silvestri, "Femtosecond photo-current excitation cross-correlation on a ladder type polymer", Synth. Met. **116**, 27 (2001) (ISSN: 0379-6779).
74. **G. Cerullo**, G. Lanzani, M. Zavelani-Rossi, S. De Silvestri, D. Comoretto, I. Moggio, G. Dellepiane, "Sub-10-fs excited state evolution on polycarbozolyldiacetylene-polyethylene blends", Synth. Met. **116**, 57 (2001) (ISSN: 0379-6779).
75. G. Lanzani, **G. Cerullo**, S. Stagira, M. Zavelani-Rossi, S. De Silvestri, "Photoexcitation of conjugated systems studied with sub-10 fs time resolution", Synth. Met. **119**, 491 (2001) (ISSN: 0379-6779).
76. S. Stagira, C. Gadermaier, G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, U. Scherf, G. Leising, S. De Silvestri, "Ultrafast photoexcitation dynamics in a ladder-type oligophenyl", Synth. Met. **119**, 609 (2001) (ISSN: 0379-6779).
77. C. Gadermaier, G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, U. Theissl, B. Hoag, G. Leising, S. De Silvestri, D.L. Gin, "Stimulated emission dynamics in a hexacatenar liquid crystal", Synth. Met. **121**, 1323 (2001) (ISSN: 0379-6779).
78. G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, D. Comoretto, G. Musso, G. Dellepiane, "Triplet-exciton generation mechanism in a new soluble (red-phase) polydiacetylene", Phys. Rev. Lett. **87**, 187402 (2001) (ISSN: 0031-9007).
79. P.A. van Hal, R.A.J. Janssen, G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, "Two-step mechanism for the photoinduced intramolecular electron transfer in oligo(p-phenylene vinylene)-fullerene dyads", Phys. Rev. B **64**, 075206 (2001) (ISSN: 1098-0121).

80. P.A. van Hal, R.A.J. Janssen, G. Lanzani, **G. Cerullo**, M. Zavelani-Rossi, S. De Silvestri, “Full temporal resolution of the two-step photoinduced energy-electron transfer in a fullerene-oligothiophene-fullerene triad using sub-10 fs pump-probe spectroscopy”, *Chem. Phys. Lett.* **345**, 33 (2001) (ISSN: 0009-2614).
81. M. Nisoli, E. Priori, G. Sansone, S. Stagira, **G. Cerullo**, S. De Silvestri, C. Altucci, R. Bruzzese, C. de Lisio, P. Villoresi, L. Poletto, M. Pascolini, G. Tondello, “High-brightness high-order harmonic generation by truncated bessel beams in the sub-10-fs regime”, *Phys. Rev. Lett.* **88**, 033202 (2002) (ISSN: 0031-9007).
82. M. Nisoli, E. Priori, G. Sansone, S. Stagira, **G. Cerullo**, S. De Silvestri, C. Altucci, R. Bruzzese, C. de Lisio, P. Villoresi, L. Poletto, M. Pascolini, G. Tondello, “The role of beam profile in high-order harmonic generation by few-optical-cycle pulses”, *Appl. Phys. B* **74**, S11 (2002) (ISSN: 0946-2171).
83. M. Zavelani-Rossi, D. Polli, **G. Cerullo**, S. De Silvestri, L. Gallmann, G. Steinmeyer, U. Keller, “Few-optical-cycle laser pulses by OPA: broadband chirped mirror compression and SPIDER characterization”, *Appl. Phys. B* **74**, S245 (2002) (ISSN: 0946-2171).
84. C. Gadermaier, **G. Cerullo**, G. Sansone, G. Leising, U. Scherf, G. Lanzani, “Time-resolved charge carrier generation from higher lying excited states in conjugated polymers”, *Phys. Rev. Lett.* **89**, 117402 (2002) (ISSN: 0031-9007).
85. **G. Cerullo**, R. Osellame, S. Taccheo, M. Marangoni, R. Ramponi, P. Laporta, S. De Silvestri, “Femtosecond micromachining of symmetric waveguides at 1.5 μm by astigmatic beam focusing”, *Opt. Lett.* **27**, 1938(2002) (ISSN: 0146-9592).
86. R. Osellame, S. Taccheo, **G. Cerullo**, M. Marangoni, D. Polli, R. Ramponi, P. Laporta, S. De Silvestri, “Optical gain in Er-Yb doped waveguides fabricated by femtosecond laser pulses”, *Electron. Lett.* **38**, 964 (2002) (ISSN: 0013-5194).
87. T. Cimei, A. R. Bizzarri, S. Cannistraro, **G. Cerullo**, S. De Silvestri, “Vibrational coherence in Azurin with impulsive excitation of the LMCT absorption band”, *Chem. Phys. Lett.* **362**, 497 (2002) (ISSN: 0009-2614).
88. **G. Cerullo**, D. Polli, G. Lanzani, S. De Silvestri, H. Hashimoto, R.J. Cogdell, “Photosynthetic light harvesting by carotenoids: detection of an intermediate excited state”, *Science* **298**, 2395 (2002) (ISSN: 0036-8075).
89. C. Gadermaier, **G. Cerullo**, M. Zavelani-Rossi, G. Sansone, G. Lanzani, E. Zojer, A. Pogantsch, D. Bejonne, Z. Shuai, J.L. Bredas, U. Scherf, G. Leising, “Ultrafast photoexcitation dynamics in a ladder-type oligophenyl”, *Phys. Rev. B* **66**, 125203 (2002) (ISSN: 1098-0121).
90. **G. Cerullo**, S. De Silvestri, “Ultrafast optical parametric amplifiers”, *Rev. Sci. Instrum.* **74**, 1 (2003) (ISSN: 0034-6748).
91. R. Osellame, S. Taccheo, M. Marangoni, R. Ramponi, P. Laporta, D. Polli, S. De Silvestri, **G. Cerullo**, “Femtosecond writing of active optical waveguides with astigmatically shaped beams”, *J. Opt. Soc. Am. B* **20**, 1559 (2003) (ISSN: 0740-3224).

92. G. Lanzani, **G. Cerullo**, Ch. Brabec, N.S. Sariciftci, "Time domain investigation of the intrachain vibrational dynamics of a prototypical light-emitting conjugated polymer", *Phys. Rev. Lett.* **90**, 047402 (2003) (ISSN: 0031-9007).
93. **G. Cerullo**, L. Lüer, C. Manzoni, S. De Silvestri, O. Shoshana, S. Ruhman, "Time domain investigation of excited state vibrational motion in organic molecules by stimulated emission pumping", *J. Phys. Chem. A* **107**, 8339-8344 (2003) (ISSN: 1089-5639).
94. L. Lüer, **G. Cerullo**, M. Zavelani-Rossi, G. Lanzani, "Probing of bound electron-hole-pairs by optical reexcitation in a short-chain oligomer", *Chem. Phys. Lett.* **381**, 751-758 (2003) (ISSN: 0009-2614).
95. L. Lüer, H.-J. Egelhaaf, D. Oelkrug, C. Gadermaier, **G. Cerullo**, G. Lanzani, "Charge Carrier Photogeneration in Oligo(phenylenevinylene) Thin Films - a Quantitative Study", *Phys. Rev. B* **68**, 155313 (2003) (ISSN: 1098-0121).
96. T. Virgili, **G. Cerullo**, C. Gadermaier, L. Lüer, G. Lanzani, D.D.C. Bradley, "Understanding fundamental processes in poly(9,9-dioctylfluorene) light-emitting diodes via ultrafast electric-field-assisted pump-probe spectroscopy", *Phys. Rev. Lett.* **90**, 247402 (2003) (ISSN: 0031-9007).
97. C. Gadermaier, **G. Cerullo**, G. Sansone, U. Scherf, G. lanzani, "Time resolved charge carrier generation from higher lying excited states in conjugated polymers", *Synth. Met.* **137**, 1457 (2003) (ISSN: 0379-6779).
98. T. Cimei, A.R. Bizzarri, **G. Cerullo**, S. De Silvestri, S. Cannistraro, "Excited state charge-transfer dynamics study of poplar plastocyanin by ultrafast pump-probe spectroscopy and molecular dynamics simulation", *Biophys. Chem.* **106**, 221-231 (2003) (ISSN: 0301-4622).
99. C. Gadermaier, **G. Cerullo**, C. Manzoni, U. Scherf, E.J.W. List, G. Lanzani, "Double-excitation dynamics in m-LPPP probed with sub-20 fs time resolution", *Synth. Met.* **139**, 605-607 (2003) (ISSN: 0379-6779).
100. T. Piok, L. Romaner, C. Gadermaier, F.P. Wenzl, S. Patil, R. Montenegro, K. Landfester, G. Lanzani, **G. Cerullo**, U. Scherf, E.J.W. List, "A detailed study of the photophysics of organic semiconducting nanospheres", *Synth. Met.* **139**, 609-612 (2003) (ISSN: 0379-6779).
101. T. Virgili, **G. Cerullo**, C. Gadermaier, L. Luer, G. Lanzani, D.D.C. Bradley, "Ultrafast electric field-assisted pump-probe spectroscopy in poly (9,9-dioctylfluorene) light-emitting diodes", *Synth. Met.* **139**, 663-666 (2003) (ISSN: 0379-6779).
102. A. Pogantsch, C. Gadermaier, **G. Cerullo**, G. Lanzani, U. Scherf, A.C. Grimsdale, K. Mullen, E.J.W. List, "Photophysics of poly(fluorenes) with dendronic side chains", *Synth. Met.* **139**, 847-849 (2003) (ISSN: 0379-6779).
103. L. Romaner, T. Piok, C. Gadermaier, R. Guentner, P.S. de Freitas, U. Scherf, **G. Cerullo**, G. Lanzani, E.J.W. List, "The influence of keto defects on photoexcitation dynamics in polyfluorene", *Synth. Met.* **139**, 851-854 (2003) (ISSN: 0379-6779).

- 104.D. Polli, **G. Cerullo**, G. Lanzani, S. De Silvestri, H. Hashimoto, R.J. Cogdell, "Excited-state dynamics of carotenoids with different conjugation length", *Synth. Met.* **139**, 893-896 (2003) (ISSN: 0379-6779).
- 105.C. Gadermaier, **G. Cerullo**, C. Manzoni, U. Scherf, E.J.W. List, G. Lanzani, "Double-excitation dynamics in m-LPPP probed with sub-20 fs temporal resolution", *Chem. Phys. Lett.* **384**, 251-255 (2004) (ISSN: 0009-2614).
- 106.M. Labardi, M. Allegrini, M. Zavelani-Rossi, D. Polli, **G. Cerullo**, S. De Silvestri, O. Svelto, "Highly efficient second-harmonic nanosource for near-field optics and microscopy", *Opt. Lett.* **29**, 62-64 (2004) (ISSN: 0146-9592).
- 107.D. Polli, **G. Cerullo**, G. Lanzani, S. De Silvestri, K. Yanagi, H. Hashimoto, R.J. Cogdell, "Conjugation Length Dependence of Internal Conversion in Carotenoids: Role of the Intermediate State", *Phys. Rev. Lett.* **93**, 163002 (2004) (ISSN: 0031-9007).
- 108.G. Lanzani, M. Zavelani-Rossi, **G. Cerullo**, D. Comoretto, G. Dellepiane, "Real time observation of coherent nuclear motion in polydiacetylene isolated chains", *Phys. Rev. B* **69**, 134302 (2004) (ISSN: 1098-0121).
- 109.T. Piok, C. Gadermaier, F.P. Wenzl, S. Patil, R. Montenegro, K. Landfester, G. Lanzani, **G. Cerullo**, U. Scherf, E.J.W. List, "The photophysics of organic semiconducting nanospheres: a comprehensive study", *Chem. Phys. Lett.* **389**, 7 (2004) (ISSN: 0009-2614).
- 110.H. Hashimoto, K. Yanagi, M. Yoshizawa, D. Polli, **G. Cerullo**, G. Lanzani, S. De Silvestri, A. T. Gardiner, R. J. Cogdell, "The Very Early Events Following Photoexcitation of Carotenoids", *Arch. Biochem. Biophys.* **430**, 61-69 (2004) (ISSN: 0003-9861).
- 111.V. Apostolopoulos, L. Laversenne, T. Colomb, C. Depeursinge, R.P. Salathé, M. Pollnau, R. Osellame, **G. Cerullo**, P. Laporta, "Femtosecond irradiation induced refractive-index changes and channel waveguiding in bulk Ti^{3+} :sapphire", *Appl. Phys. Lett.* **85**, 1122-1124 (2004) (ISSN: 0003-6951).
- 112.G. Lanzani, **G. Cerullo**, D. Polli, A. Gambetta, M. Zavelani-Rossi, C. Gadermaier, "Photophysics of conjugated polymers: the contribution of ultrafast spectroscopy", *Phys. Stat. Sol.* **201**, 1116 (2004) (ISSN: 0031-8965).
- 113.R. Osellame, N. Chiodo, G. Della Valle, S. Taccheo, R. Ramponi, **G. Cerullo**, A. Killi, U. Morgner, M. Lederer, D. Kopf, "Optical waveguide writing with a diode-pumped femtosecond oscillator", *Opt. Lett.* **29**, 1900-1902 (2004) (ISSN: 0146-9592).
- 114.S. Taccheo, G. Della Valle, R. Osellame, **G. Cerullo**, N. Chiodo, P. Laporta, O. Svelto, A. Killi, U. Morgner, M. Lederer, D. Kopf, "Er:Yb-doped waveguide laser fabricated by femtosecond laser pulses", *Opt. Lett.* **29**, 2626-2628 (2004) (ISSN: 0146-9592).
- 115.C. Manzoni, **G. Cerullo**, S. De Silvestri, "Ultrabroadband self-phase-stabilized pulses by difference-frequency generation", *Opt. Lett.* **29**, 2668-2670 (2004) (ISSN: 0146-9592).
- 116.H. Neugebauer, M.A. Loi, C. Winder, N.S. Sariciftci, **G. Cerullo**, A. Gouloumis, P. Vazquez, T. Torres, "Photophysics and photovoltaic device properties of phthalocyanine-fullerene dyad:

- conjugated polymer mixtures”, *Solar Energy Materials and Solar Cells* **83**, 201-209 (2004) (ISSN: 0927-0248).
- 117.L. Luer, H.J. Egelhaaf, D. Oelkrug, **G. Cerullo**, G. Lanzani, B.H. Huisman, D. de Leeuw, ”Oxygen-induced quenching of photoexcited states in polythiophene films”, *Org. Electron.* **5**, 83-89 (2004) (ISSN: 1566-1199).
 - 118.M. Labardi, M. Zavelani-Rossi, D. Polli, **G. Cerullo**, M. Allegrini, S. De Silvestri, O. Svelto, “Characterization of femtosecond light pulses coupled to hollow-pyramid near-field probes: localization in space and time”, *Appl. Phys. Lett.* **86**, 031105 (2005) (ISSN: 0003-6951).
 - 119.V. Lehtovuori, P. Myllyperkiö, C. Manzoni, D. Polli, **G. Cerullo**, M. Haukka, J. Korppi-Tommola, “Light Induced Dissociation Reaction of Ru(dcbpy)(CO)₂I₂ in Solution Measured with 20 fs Time Resolution”, *J. Phys. Chem. B* **109**, 17538 (2005) (ISSN: 1520-6106).
 - 120.R. Osellame, N. Chiodo, V. Maselli, A. Yin, M. Zavelani-Rossi, **G. Cerullo**, P. Laporta, L. Aiello, S. De Nicola, P. Ferraro, A. Finizio, and G. Pierattini, "Optical properties of waveguides written by a 26 MHz stretched cavity Ti:sapphire femtosecond oscillator," *Opt. Express* **13**, 612-620 (2005) (ISSN: 1094-4087).
 - 121.T. Virgili, D. Marinotto, C. Manzoni, **G. Cerullo**, G. Lanzani, “Ultrafast intrachain photophysics in a polymeric semiconductor”, *Phys. Rev. Lett.* **94**, 117402 (2005) (ISSN: 0031-9007).
 - 122.R. Osellame, V. Maselli, N. Chiodo, D. Polli, R. Martinez Vazquez, R. Ramponi, **G. Cerullo**, “Fabrication of 3D photonic devices at 1.55 μm wavelength by a femtosecond Ti:Sapphire oscillator”, *Electron. Lett.*, **41**, 315 (2005) (ISSN: 0013-5194).
 - 123.R. Martinez-Vazquez, R. Osellame, **G. Cerullo**, P. Laporta, R. Ramponi, N. Chiodini, A. Paleari, G. Spinolo, “Fabrication of guiding structures in nanostructured tin-silicate glass ceramic by a focused femtosecond laser”, *J. Non Cryst. Sol.* **351**, 1855 (2005) (ISSN: 0022-3093).
 - 124.C. Manzoni, A. Gambetta, E. Menna, M. Meneghetti, G. Lanzani, **G. Cerullo**, “Intersubband exciton relaxation dynamics in single-walled carbon nanotubes”, *Phys. Rev. Lett.* **94**, 207401 (2005) (ISSN: 0031-9007).
 - 125.C. Gadermaier, L. Romaner, T. Piok, E.J.W. List, B. Souharce, U. Scherf, **G. Cerullo**, G. Lanzani, “Comprehensive photophysical studies of polyfluorenes containing on-chain emissive defects”, *Phys. Rev. B* **72**, 045208 (2005) (ISSN: 1098-0121).
 - 126.G. Della Valle, R. Osellame, N. Chiodo, S. Taccheo, **G. Cerullo**, P. Laporta, A. Killi, U. Morgner, M. Lederer, and D. Kopf, "C-band waveguide amplifier produced by femtosecond laser writing," *Opt. Express* **13**, 5976-5982 (2005) (ISSN: 1094-4087).
 - 127.P. Biagioni, D. Polli, M. Labardi, A. Pucci, G. Ruggeri, **G. Cerullo**, M. Finazzi, L. Duo, “Unexpected polarization behavior at the aperture of hollow-pyramid near-field probes”, *Appl. Phys. Lett.* **87**, 223112 (2005) (ISSN: 0003-6951).

- 128.M. Labardi, M. Allegrini, M. Zavelani-Rossi, D. Polli, **G. Cerullo**, S. De Silvestri, O. Svelto, "Femtosecond pulse coupling to near-field cantilevered probes", *J. Kor. Phys. Soc.* **47**, S30 (2005) (ISSN: 0374-4884).
- 129.P. Biagioni, M. Coduri, D. Polli, T. Virgili, M. Labardi, **G. Cerullo**, M. Finazzi, L. Duò, "Near-field vs. far-field polarization properties of hollow pyramid SNOM tips", *Phys. Stat.Sol. (c)* **2**, 4078-4082 (2005) (ISSN: 1610-1642).
- 130.G. Lanzani, **G. Cerullo**, A. Gambetta, C. Manzoni, E. Menna, M. Meneghetti, "Exciton relaxation in single wall carbon nanotubes", *Synth. Met.* **155**, 246-249 (2005) (ISSN: 0379-6779).
- 131.C. Manzoni, C. Vozzi, E. Benedetti, G. Sansone, S. Stagira, O. Svelto, S. De Silvestri, M. Nisoli and **G. Cerullo**, "Generation of high energy self-phase stabilized pulses by difference frequency generation followed by optical parametric amplification", *Opt. Lett.* **31**, 963-965 (2006) (ISSN: 0146-9592).
- 132.C. Manzoni, D. Polli, **G. Cerullo**, "Two-colour pump-probe system broadly tunable over the visible and the near infrared with sub-30-fs temporal resolution", *Rev. Sci. Instrum.* **77**, 023103 (2006) (ISSN: 0034-6748).
- 133.D. Polli, **G. Cerullo**, G. Lanzani, S. De Silvestri, K. Yanagi, H. Hashimoto, R.J. Cogdell, "Carotenoid-Bacteriochlorophyll Energy Transfer in LH2 Complexes studied with 10-fs Time Resolution", *Biophys. Journal* **90**, 2486-2497 (2006) (ISSN: 0006-3495).
- 134.M. Marangoni, C. Manzoni, R. Ramponi, **G. Cerullo**, F. Baronio, C. De Angelis, K. Kitamura, "Group-velocity control by quadratic nonlinear interactions", *Opt. Lett.* **31**, 534-536 (2006) (ISSN: 0146-9592).
- 135.R. Osellame, N. Chiodo, G. Della Valle, **G. Cerullo**, R. Ramponi, P. Laporta, A. Killi, U. Morgner, O. Svelto, "Waveguide Lasers in the C-Band Fabricated by Laser Inscription with a Compact Femtosecond Oscillator", *IEEE J.S.T.Q.E.* **12**, 277-285 (2006) (ISSN: 1077-260X).
- 136.L. Lüer, C. Manzoni, H.-J. Egelhaaf, **G. Cerullo**, D. Oelkrug, G. Lanzani, "Primary photoexcitations and their interconversion in oligophenylenevinylene nanocrystals: the role of excess energy studied with sub-30 fs resolution", *Phys. Rev. B* **73**, 035216 (2006) (ISSN: 1098-0121).
- 137.N. Chiodo, G. Della Valle, R. Osellame, S. Longhi, **G. Cerullo**, R. Ramponi, P. Laporta, U. Morgner, "Imaging Bloch Oscillations in femtosecond-laser-written erbium-doped curved waveguide arrays", *Opt. Lett.* **31**, 1651-1653 (2006) (ISSN: 0146-9592).
- 138.V. Maselli, R. Osellame, **G. Cerullo**, R. Ramponi, P. Laporta, L. Magagnin, P.L. Cavallotti, "Fabrication of long microchannels with circular cross section using astigmatically shaped femtosecond laser pulses and chemical etching", *Appl. Phys. Lett.* **88**, 191107 (2006) (ISSN: 0003-6951).
- 139.F. Baronio, C. De Angelis, M. Marangoni, C. Manzoni, R. Ramponi, **G. Cerullo**, "Spectral shift of femtosecond pulses in nonlinear quadratic PPSLT Crystals ," *Opt. Express* **14**, 4774-4779 (2006) (ISSN: 1094-4087).

140. A. Gambetta, C. Manzoni, E. Menna, M. Meneghetti, **G. Cerullo**, G. Lanzani, S. Tretiak, A. Piryatinski, A. Saxena, R.L. Martin, A.R. Bishop, “Real time observation of non-linear coherent phonon dynamics in single-walled carbon nanotubes”, *Nature Physics* **2**, 515-520 (2006) (ISSN: 1745-2473).
141. I. Delfino, C. Manzoni, K. Sato, Ch. Dennison, **G. Cerullo**, S. Cannistraro, “Ultrafast pump-probe study of Excited-State Charge-Transfer Dynamics in Umecyanin from *Horseradish root*”, *J. Phys. Chem. B* **110**, 17252-17259 (2006) (ISSN: 1520-6106).
142. P. Tzankov, J. Zheng, M. Mero, D. Polli, C. Manzoni, **G. Cerullo**, “300- μ J noncollinear optical parametric amplifier in the visible at 1 kHz repetition rate”, *Opt. Lett.* **31**, 3629 (2006) (ISSN: 0146-9592).
143. G. Della Valle, R. Osellame, G. Galzerano, N. Chiodo, **G. Cerullo**, P. Laporta, O. Svelto, U. Morgner, A. G. Rozhin, V. Scardaci, A. C. Ferrari, “Passive mode-locking by carbon nanotubes in a femtosecond laser written waveguide laser”, *Appl. Phys. Lett.* **89**, 231115 (2006) (ISSN: 0003-6951).
144. C. Vozzi, G. Cirimi, C. Manzoni, E. Benedetti, F. Calegari, G. Sansone, S. Stagira, O. Svelto, S. De Silvestri, M. Nisoli, **G. Cerullo**, “High-energy, few-optical-cycle pulses at 1.5 μ m with passive carrier-envelope phase stabilization”, *Opt. Express* **14**, 10109-10116 (2006) (ISSN: 1094-4087) (ISSN: 1094-4087).
145. N.D. Psaila, R.R. Thomson, H.T. Bookey, A.K. Kar, N. Chiodo, R. Osellame, **G. Cerullo**, G. Brown, A. Jha, S. Shen, “Femtosecond-inscribed waveguides fabricated in Bi-ion doped glass”, *Opt. Express* **14**, 10452 (2006) (ISSN: 1094-4087).
146. M.-L. Tan, A. R. Bizzarri, Y. Xiao, S. Cannistraro, T. Ichiye, C. Manzoni, **G. Cerullo**, M. W. W. Adams, F. E. Jenney, Jr., S. P. Cramer, “Observation of Terahertz Vibrations in *Pyrococcus furiosus* Rubredoxin via Impulsive Coherent Vibrational Spectroscopy and Nuclear Resonance Vibrational Spectroscopy – Interpretation by Molecular Mechanics”, *J. Inorgan. Biochem.* **101**, 375-384 (2007) (ISSN: 0162-0134).
147. **G. Cerullo**, C. Manzoni, L. L  r, D. Polli, “Broadband pump-probe spectroscopy system with sub-20-fs temporal resolution for the study of energy transfer processes in photosynthesis”, *Photochem. Photobiol. Sci.* **6**, 135 (2007) (ISSN: 1474-905X).
148. M. Marangoni, R. Osellame, R. Ramponi, **G. Cerullo**, A. Steinmann, U. Morgner, “Near-infrared optical parametric amplifier at 1 MHz directly pumped by a femtosecond oscillator”, *Opt. Lett.* **32**, 1489-1491 (2007) (ISSN: 0146-9592).
149. N. D. Psaila, R. R. Thomson, H. T. Bookey, A. K. Kar, N. Chiodo, R. Osellame, **G. Cerullo**, A. Jha, S. Shen, “Er:Yb-doped Waveguide Amplifier in Oxyfluoride Silicate Glass Fabricated using Femtosecond Laser Inscription”, *Appl. Phys. Lett.* **90**, 131102 (2007) (ISSN: 0003-6951).
150. R. Pomraenke, C. Ropers, J. Renard, C. Lienau, L. L  r, D. Polli, **G. Cerullo**, “Structural phase contrast in polycrystalline organic semiconductor films observed by broadband near-field optical spectroscopy”, *Nano Letters* **7**, 998-1002 (2007) (ISSN: 1530-6984).

151. H. T. Bookey, R. R. Thomson, N. D. Psaila, A. K. Kar, N. Chiodo, R. Osellame, **G. Cerullo**, "Femtosecond Laser Inscription of Low Insertion Loss Waveguides in Z-cut Lithium Niobate," *IEEE Phot. Tech. Lett.* **19**, 892-894 (2007) (ISSN: 1041-1135).
152. C. Manzoni, D. Polli, G. Cirimi, D. Brida, S. De Silvestri, and **G. Cerullo**, "Tunable few-optical-cycle pulses with passive carrier-envelope phase stabilization from an optical parametric amplifier", *Appl. Phys. Lett.* **90**, 171111 (2007) (ISSN: 0003-6951).
153. G. Della Valle, S. Taccheo, R. Osellame, A. Festa, **G. Cerullo**, P. Laporta, "1.5 μm single longitudinal mode waveguide laser fabricated by femtosecond laser writing," *Opt. Express* **15**, 3190-3194 (2007) (ISSN: 1094-4087).
154. R. Osellame, V. Maselli, R. Martinez Vazquez, R. Ramponi, **G. Cerullo**, "Integration of optical waveguides and microfluidic channels both fabricated by femtosecond laser irradiation", *Appl. Phys. Lett.* **90**, 231118 (2007) (ISSN: 0003-6951).
155. G. Cirimi, D. Brida, C. Manzoni, M. Marangoni, S. De Silvestri, **G. Cerullo**, "Few-optical-cycle pulses in the near-IR from a non-collinear optical parametric amplifier", *Opt. Lett.* **32**, 2396-2398 (2007) (ISSN: 0146-9592).
156. R. Osellame, M. Lobino, N. Chiodo, M. Marangoni, **G. Cerullo**, R. Ramponi, H. T. Bookey, R. R. Thomson, N. D. Psaila, A. K. Kar, "Femtosecond laser writing of waveguides in periodically poled lithium niobate preserving the nonlinear coefficient", *Appl. Phys. Lett.* **90**, 241107 (2007) (ISSN: 0003-6951).
157. M. A. Marangoni, D. Brida, M. Quintavalle, G. Cirimi, F. M. Pigozzo, C. Manzoni, F. Baronio, A. D. Capobianco, **G. Cerullo**, "Narrow-bandwidth picosecond pulses by spectral compression of femtosecond pulses in second-order nonlinear crystals," *Opt. Express* **15**, 8884-8891 (2007) (ISSN: 1094-4087).
158. C. Vozzi, G. Cirimi, C. Manzoni, E. Benedetti, F. Calegari, L. Luër, G. Sansone, S. Stagira, S. De Silvestri, M. Nisoli, **G. Cerullo**, "High energy self-phase-stabilized pulses tunable in the near-IR by difference frequency generation and optical parametric amplification", *Las. Part. Beams* **25**, 471-479 (2007) (ISSN: 0263-0346).
159. D. Polli, M. Rini, S. Wall, R. W. Schoenlein, Y. Tomioka, Y. Tokura, **G. Cerullo**, A. Cavalleri, "Coherent orbital waves in the photo-induced insulator-metal dynamics of a magnetoresistive manganite", *Nature Materials* **6**, 643 - 647 (2007) (ISSN: 1476-1122).
160. L. Lüer, C. Manzoni, **G. Cerullo**, G. Lanzani, M. Meneghetti, "Ultrafast Dynamics of a Charge-Transfer Dimer as a Model for the Photoinduced Phase Transition of Charge-Transfer Compounds", *Phys. Rev. Lett.* **99**, 027401 (2007) (ISSN: 0031-9007).
161. R. Osellame, R. Martinez Vazquez, **G. Cerullo**, R. Ramponi, O. Svelto, V. Russo, A. Li Bassi, C. E. Bottani, C. Spinella, "Interaction between femtosecond laser pulses and $\text{CdS}_x\text{Se}_{1-x}$ quantum dots in glasses", *Phys. Rev. B* **76**, 045340 (2007) (ISSN: 1098-0121).
162. D. Polli, L. Lüer, **G. Cerullo**, "High-time-resolution pump-probe system with broadband detection for the study of time-domain vibrational dynamics", *Rev. Sci. Instrum.* **78**, 103108 (2007) (ISSN: 0034-6748).

- 163.R. Martinez-Vazquez, R. Osellame, **G. Cerullo**, R. Ramponi, O. Svelto, "Fabrication of photonic devices in nanostructured glasses by femtosecond laser pulses", *Opt. Express* **15**, 12628-12635 (2007) (ISSN: 1094-4087).
- 164.C. Ropers, T. Elsaesser, **G. Cerullo**, M. Zavelani-Rossi, C. Lienau, "Ultrafast optical excitations of metallic nanostructures: from light confinement to a novel electron source", *New. J. Phys.* **9**, 397 (2007) (ISSN: 1367-2630).
- 165.C. Vozzi, F. Calegari, E. Benedetti, S. Gasilov, G. Sansone, **G. Cerullo**, M. Nisoli, S. De Silvestri, S. Stagira, "Millijoule-level phase-stabilized few-optical-cycle infrared parametric source," *Opt. Lett.* **32**, 2957-2959 (2007) (ISSN: 0146-9592).
- 166.D. Brida, C. Manzoni, G. Cirimi, M. Marangoni, S. De Silvestri, **G. Cerullo**, "Generation of broadband mid-infrared pulses from an optical parametric amplifier," *Opt. Express* **15**, 15035-15040 (2007) (ISSN: 1094-4087).
- 167.N. D. Psaila, R. R. Thomson, H. T. Bookey, S. Shen, N. Chiodo, R. Osellame, **G. Cerullo**, A. Jha, A. K. Kar, "Supercontinuum generation in an ultrafast laser inscribed chalcogenide glass waveguide," *Opt. Express* **15**, 15776-15781 (2007) (ISSN: 1094-4087).
- 168.P. Biagioni, M. Celebrano, M. Zavelani-Rossi, D. Polli, M. Labardi, G. Lanzani, **G. Cerullo**, M. Finazzi, L. Duo, "High-resolution imaging of local oxidation in polyfluorene thin films by nonlinear near-field microscopy", *Appl. Phys. Lett.* **91**, 191118 (2007) (ISSN: 0003-6951).
- 169.N. D. Psaila, R. R. Thomson, H. T. Bookey, N. Chiodo, S. Shen, R. Osellame, **G. Cerullo**, A. Jha, A. K. Kar, "Er:Yb-doped oxyfluoride silicate glass waveguide laser fabricated using ultrafast laser inscription", *IEEE Phot. Tech. Lett.* **20**, 126-128 (2008) (ISSN: 1041-1135).
- 170.D. Polli, M.R. Antognazza, D. Brida, G. Lanzani, **G. Cerullo**, S. De Silvestri, "Broadband pump-probe spectroscopy with sub-10-fs resolution for probing ultrafast internal conversion and coherent phonons in carotenoids", *Chem. Phys.* **350**, 45-55 (2008) (ISSN: 0301-0104).
- 171.M. Zavelani-Rossi, M. Celebrano, P. Biagioni, D. Polli, M. Finazzi, L. Duo, **G. Cerullo**, M. Labardi, M. Allegrini, J. Grand, P.-M. Adam, "Near-field second-harmonic generation in single gold nanoparticles", *Appl. Phys. Lett.* **92**, 093119 (2008) (ISSN: 0003-6951).
- 172.R. Pomraenke, C. Ropers, J. Renard, C. Lienau, L. Lüer, D. Polli, **G. Cerullo**, "Broadband optical near-field microscope for nanoscale absorption spectroscopy of organic materials", *J. Microsc.* **229**, 197-202 (2008) (ISSN: 0022-2720).
- 173.M. Celebrano, M. Zavelani-Rossi, D. Polli, **G. Cerullo**, P. Biagioni, M. Finazzi, L. Duò, M. Labardi, M. Allegrini, J. Grand, P.-M. Adam, "Mapping local field enhancements at nanostructured metal surfaces by second-harmonic generation induced in the near field", *J. Microsc.* **229**, 233-239 (2008) (ISSN: 0022-2720).
- 174.D. Brida, G. Cirimi, C. Manzoni, S. Bonora, P. Villorresi, S. De Silvestri, **G. Cerullo**, "Sub-two-cycle light pulses at 1.6 μm from an optical parametric amplifier," *Opt. Lett.* **33**, 741-743 (2008) (ISSN: 0146-9592).

175. G. Cirimi, C. Manzoni, D. Brida, S. De Silvestri, **G. Cerullo**, "Carrier-envelope phase stable, few-optical-cycle pulses tunable from visible to near IR," *J. Opt. Soc. Am. B* **25**, B62-B69 (2008) (ISSN: 0740-3224).
176. C. Vozzi, C. Manzoni, F. Calegari, E. Benedetti, G. Sansone, **G. Cerullo**, M. Nisoli, S. De Silvestri, S. Stagira, "Characterization of a high-energy self-phase-stabilized near-infrared parametric source," *J. Opt. Soc. Am. B* **25**, B112-B117 (2008) (ISSN: 0740-3224).
177. R. Osellame, G. Della Valle, N. Chiodo, S. Taccheo, P. Laporta, O. Svelto, **G. Cerullo**, "Lasing in femtosecond laser written optical waveguides", *Appl. Phys. A* **93**, 17-26 (2008). (ISSN: 1432-0630).
178. D. Ghezzi, R. Martinez Vazquez, R. Osellame, F. Valtorta, A. Pedrocchi, G. Della Valle, R. Ramponi, G. Ferrigno, **G. Cerullo**, "Femtosecond Laser Microfabrication of an Integrated Device for Optical Release and Sensing of Bioactive Compounds", *Sensors* **8**, 6595-6604 (2008) (ISSN: 1424-8220).
179. M. Marangoni, G. Sanna, D. Brida, M. Conforti, G. Cirimi, C. Manzoni, F. Baronio, P. Bassi, C. De Angelis, **G. Cerullo**, "Observation of spectral drift in engineered quadratic nonlinear media", *Appl. Phys. Lett.* **93**, 021107 (2008) (ISSN: 0003-6951).
180. M. Celebrano, P. Biagioni, M. Finazzi, L. Duò, M. Zavelani-Rossi, D. Polli, M. Labardi, M. Allegrini, J. Grand, P.-M. Adam, P. Royer, **G. Cerullo**, "Near-field second-harmonic generation from gold nanoellipsoids", *physica status solidi (c)* **5**, 2657-2661 (2008) (ISSN: 1610-1642).
181. P. Biagioni, M. Celebrano, M. Labardi, D. Polli, M. Zavelani-Rossi, **G. Cerullo**, G. Lanzani, M. Finazzi, L. Duò, "A novel diagnostics for polymer degradation based on near-field two-photon photoluminescence", *physica status solidi (c)* **5**, 2587-2590 (2008) (ISSN: 1610-1642).
182. C. Dongre, R. Dekker, H.J.W.M. Hoekstra, M. Pollnau, R. Martinez-Vazquez, R. Osellame, G. Cerullo, R. Ramponi, R. van Weeghel, G.A.J. Besselink, and H.H. van den Vlekert, "Fluorescence monitoring of microchip capillary electrophoresis separation with monolithically integrated waveguides," *Opt. Lett.* **33**, 2503-2505 (2008)
183. D. Brida, M. Marangoni, C. Manzoni, S. De Silvestri, and G. Cerullo, "Two-optical-cycle pulses in the mid-infrared from an optical parametric amplifier," *Opt. Lett.* **33**, 2901-2903 (2008).
184. R. Martinez Vazquez, R. Osellame, D. Nalli, C. Dongre, H. van den Vlekert, R. Ramponi, M. Pollnau and G. Cerullo, "Integration of femtosecond laser written optical waveguides in a lab-on-chip", *Lab Chip* **9**, 91-96 (2009).
185. M. Marangoni, D. Brida, M. Conforti, A. D. Capobianco, C. Manzoni, F. Baronio, G. F. Nalesso, C. De Angelis, R. Ramponi, and G. Cerullo, "Synthesis of picosecond pulses by spectral compression and shaping of femtosecond pulses in engineered quadratic nonlinear media," *Opt. Lett.* **34**, 241-243 (2009)

- 186.C. Manzoni, R. Osellame, M. Marangoni, M. Schultze, U. Morgner, and G. Cerullo, "High-repetition-rate two-color pump-probe system directly pumped by a femtosecond ytterbium oscillator," *Opt. Lett.* **34**, 620-622 (2009)
- 187.M. Pospiech, M. Emons, A. Steinmann, G. Palmer, R. Osellame, N. Bellini, G. Cerullo, and U. Morgner, "Double waveguide couplers produced by simultaneous femtosecond writing," *Opt. Express* **17**, 3555-3563 (2009)
- 188.M. Beutler, M. Ghotbi, F. Noack, D. Brida, C. Manzoni, and G. Cerullo, "Generation of high-energy sub-20 fs pulses tunable in the 250-310 nm region by frequency doubling of a high-power noncollinear optical parametric amplifier," *Opt. Lett.* **34**, 710-712 (2009)
- 189.J. Moses, C. Manzoni, S.-W. Huang, G. Cerullo, and F. X. Kaertner, "Temporal optimization of ultrabroadband high-energy OPCPA," *Opt. Express* **17**, 5540-5555 (2009).
- 190.C. Manzoni, G. Cirimi, D. Brida, S. De Silvestri, and G. Cerullo, "Optical-parametric-generation process driven by femtosecond pulses: Timing and carrier-envelope phase properties", *Phys. Rev. A* **79**, 033818 (2009).
- 191.R. Martinez Vazquez, R. Osellame, M. Cretich, M. Chiari, C. Dongre, H.J.W.M. Hoekstra, M. Pollnau, H. van den Vlekkert, R. Ramponi and G. Cerullo, "Optical sensing in microfluidic lab-on-a-chip by femtosecond-laser-written waveguides", *Anal. Bioanal. Chem.* **393**, 1209–1216 (2009).
- 192.M. Celebrano, P. Biagioni, M. Zavelani-Rossi, D. Polli, M. Labardi, M. Allegrini, M. Finazzi, L. Duo, and G. Cerullo, "Hollow-pyramid based scanning near-field optical microscope coupled to femtosecond pulses: A tool for nonlinear optics at the nanoscale", *Rev. Sci. Instrum.* **80**, 033704 (2009).
- 193.E. Carpene, E. Mancini, C. Dallera, G. Ghiringhelli, C. Manzoni, G. Cerullo, and S. De Silvestri, "A versatile apparatus for time-resolved photoemission spectroscopy via femtosecond pump-probe experiments", *Rev. Sci. Instrum.* **80**, 055101 (2009).
- 194.M. Celebrano, C. Sciascia, G. Cerullo, M. Zavelani-Rossi, G. Lanzani, J.Cabanillas-Gonzalez, "Imaging the Electric-Field Distribution in Organic Devices by Confocal Electreflectance Microscopy", *Adv. Funct. Mat.* **19**, 1-6 (2009).
- 195.B. Bozzini, G. Cerullo, L. D'Urzo, D. Polli, "In situ femtosecond spectroelectrochemistry of Au(1 1 1) in an aqueous chloride solution", *Electrochem. Comm.* **11**, 799-803 (2009).
- 196.D. Brida, S. Bonora, C. Manzoni, M. Marangoni, P. Villoresi, S. De Silvestri, and G. Cerullo, "Generation of 8.5-fs pulses at 1.3 μm for ultrabroadband pump-probe spectroscopy," *Opt. Express* **17**, 12510-12515 (2009).
- 197.K.C. Vishnubhatla, N. Bellini, R. Ramponi, G. Cerullo, and R. Osellame, "Shape control of microchannels fabricated in fused silica by femtosecond laser irradiation and chemical etching," *Opt. Express* **17**, 8685-8695 (2009).
- 198.M. Marangoni, A. Gambetta, C. Manzoni, V. Kumar, R. Ramponi, and G. Cerullo, "Fiber-format CARS spectroscopy by spectral compression of femtosecond pulses from a single laser oscillator," *Opt. Lett.* **34**, 3262-3264 (2009).

- 199.M. Celebrano, M. Savoini, P. Biagioni, M. Zavelani-Rossi, P.-M. Adam, L. Duo, G. Cerullo, and M. Finazzi, "Retrieving the complex polarizability of single plasmonic nanoresonators", *Phys. Rev. B* **80**, 153407 (2009).
- 200.P. Biagioni, M. Celebrano, M. Savoini, G. Grancini, D. Brida, S. Matefi-Tempfli, M. Matefi-Tempfli, L. Duo, B. Hecht, G. Cerullo, and M. Finazzi, "Dependence of the two-photon photoluminescence yield of gold nanostructures on the laser pulse duration", *Phys. Rev. B* **80**, 045411 (2009).
- 201.P. Myllyperkio, C. Manzoni, D. Polli, G. Cerullo, J. Korppi-Tommola, "Electron Transfer from Organic Aminophenyl Acid Sensitizers to Titanium Dioxide Nanoparticle Films", *J. Phys. Chem. C* **113**, 13985-13992 (2009).
- 202.A.M. Siddiqui, G. Cirimi, D. Brida, F. X. Kärtner, and G. Cerullo, "Generation of <7 fs pulses at 800 nm from a blue-pumped optical parametric amplifier at degeneracy," *Opt. Lett.* **34**, 3592-3594 (2009).
- 203.A. Crespi, Y. Gu, B. Ngamsom, H.J.W.M. Hoekstra, C. Dongre, M. Pollnau, R. Ramponi, H.H. van den Vlekkert, P. Watts, G. Cerullo, and R. Osellame, "Three-dimensional Mach-Zehnder interferometer in a microfluidic chip for spatially-resolved label-free detection" *Lab Chip* **10**, 1167–1173 (2010).
- 204.A. Gambetta, V. Kumar, G. Grancini, D. Polli, R. Ramponi, G. Cerullo, and M. Marangoni, "Fiber-format stimulated-Raman-scattering microscopy from a single laser oscillator," *Opt. Lett.* **35**, 226-228 (2010).
- 205.T. Virgili, L. Lüer, G. Cerullo, G. Lanzani, S. Stagira, D. Coles, A. J. H. M. Meijer, and D. G. Lidzey, "Role of intramolecular dynamics on intermolecular coupling in cyanine dye", *Phys. Rev. B* **81**, 125317 (2010).
- 206.I. Delfino, G. Cerullo, S. Cannistraro, C. Manzoni, D. Polli, C. Dapper, W.E. Newton, Y. Guo, and S.P. Cramer, "Observation of Terahertz Vibrations in the Nitrogenase FeMo Cofactor by Femtosecond Pump–Probe Spectroscopy", *Angew. Chem. Int. Ed.* **49**, 3912-3915 (2010).
- 207.C. Dongre, J. van Weerd, R. van Weeghel, R. Martinez Vazquez, R. Osellame, G. Cerullo, M. Cretich, M. Chiari, H.J.W.M. Hoekstra, and M. Pollnau, "High-resolution electrophoretic separation and integrated-waveguide excitation of fluorescent DNA molecules in a lab on a chip", *Electrophoresis* **15**, 2584-2588 (2010).
- 208.M. R. Antognazza, L. Lüer, D. Polli, R.L. Christensen, R.R. Schrock, G. Lanzani and G. Cerullo, "Ultrafast excited state relaxation in long-chain polyenes", *Chem. Phys.* **373**, 115-121 (2010).
- 209.F. Junginger, A. Sell, O. Schubert, B. Mayer, D. Brida, M. Marangoni, G. Cerullo, A. Leitenstorfer, and R. Huber, "Single-cycle multiterahertz transients with peak fields above 10 MV/cm," *Opt. Lett.* **35**, 2645-2647 (2010).
- 210.A. Bassi, D. Brida, C. D'Andrea, G. Valentini, R. Cubeddu, S. De Silvestri, and G. Cerullo, "Time-gated optical projection tomography," *Opt. Lett.* **35**, 2732-2734 (2010).

- 211.D. Polli, G. Grancini, J. Clark, M. Celebrano, T. Virgili, G. Cerullo, and G. Lanzani, "Nanoscale Imaging of the Interface Dynamics in Polymer Blends by Femtosecond Pump-Probe Confocal Microscopy", *Adv. Mat.* **22**, 3048–3051 (2010).
- 212.D. Polli, P. Altoè, O. Weingart, K.M. Spillane, C. Manzoni, D. Brida, G. Tomasello, G. Orlandi, P. Kukura, R.A. Mathies, M. Garavelli and G. Cerullo, "Conical intersection dynamics of the primary photoisomerization event in vision", *Nature* **467**, 440-443 (2010).
- 213.T. Toney Fernandez, S. M. Eaton, G. Della Valle, R. Martinez Vazquez, M. Irannejad, G. Jose, A. Jha, G. Cerullo, R. Osellame, and P. Laporta, "Femtosecond laser written optical waveguide amplifier in phospho-tellurite glass," *Opt. Express* **18**, 20289-20297 (2010)
- 214.S. Bonora, D. Brida, P. Villoresi, and G. Cerullo, "Ultrabroadband pulse shaping with a push-pull deformable mirror," *Opt. Express* **18**, 23147-23152 (2010).
- 215.F. Venturini, W. Navarrini, G. Resnati, P. Metrangolo, R. Martinez Vazquez, R. Osellame, G. Cerullo, "Selective Iterative Etching of Fused Silica with Gaseous Hydrofluoric Acid", *J. Phys. Chem. C* **114**, 18712-18716 (2010).
- 216.P. Vasa, R. Pomraenke, G. Cirmi, E. De Re, W. Wang, S. Schwieger, D. Leipold, E. Runge, G. Cerullo, and C. Lienau, "Ultrafast Manipulation of Strong Coupling in Metal–Molecular Aggregate Hybrid Nanostructures", *ACS Nano* **4**, 7559-7565 (2010).
- 217.D. Polli, D. Brida, S. Mukamel, G. Lanzani, and G. Cerullo, "Effective temporal resolution in pump-probe spectroscopy with strongly chirped pulses", *Phys. Rev. A* **82**, 053809 (2010).
- 218.C. Dongre, J. van Weerd, N. Bellini, R. Osellame, G. Cerullo, R. van Weeghel, H.J.W.M. Hoekstra, and M. Pollnau, "Dual-point dual-wavelength fluorescence monitoring of DNA separation in a lab on a chip," *Biomed. Opt. Express* **1**, 729-735 (2010).
- 219.C. De Marco, S.M. Eaton, R. Suriano, S. Turri, M. Levi, R. Ramponi, G. Cerullo, and R. Osellame, "Surface Properties of Femtosecond Laser Ablated PMMA", *ACS Appl. Mater. Interfaces* **2**, 2377–2384 (2010).
- 220.L. Lüer, J. Crochet, T. Hertel, G. Cerullo, and G. Lanzani, "Ultrafast Excitation Energy Transfer in Small Semiconducting Carbon Nanotube Aggregates", *ACS Nano* **4**, 4265–4273 (2010).
- 221.C. Gadermaier, A. S. Alexandrov, V. V. Kabanov, P. Kusar, T. Mertelj, X. Yao, C. Manzoni, D. Brida, G. Cerullo, and D. Mihailovic, "Electron-Phonon Coupling in High-Temperature Cuprate Superconductors Determined from Electron Relaxation Rates", *Phys. Rev. Lett.* **105**, 257001 (2010).
- 222.S. Wall, D. Brida, S. R. Clark, H. P. Ehrke, D. Jaksch, A. Ardavan, S. Bonora, H. Uemura, Y. Takahashi, T. Hasegawa, H. Okamoto, G. Cerullo and A. Cavalleri, "Quantum interference between charge excitation paths in a solid-state Mott insulator", *Nature Physics* **7**, 114-118 (2011).
- 223.E. Pontecorvo, S.M. Kapetanaki, M. Badioli, D. Brida, M. Marangoni, G. Cerullo, and T. Scopigno, "Femtosecond stimulated Raman spectrometer in the 320-520nm range," *Opt. Express* **19**, 1107-1112 (2011).

- 224.S. Brivio, D. Polli, A. Crespi, R. Osellame, G. Cerullo, and R. Bertacco, "Observation of anomalous acoustic phonon dispersion in SrTiO₃ by broadband stimulated Brillouin scattering", *Appl. Phys. Lett.* **98**, 211907 (2011).
- 225.E. Pontecorvo, M. Ortolani, D. Polli, M. Ferretti, G. Ruocco, G. Cerullo, and T. Scopigno, "Visualizing coherent phonon propagation in the 100 GHz range: A broadband picosecond acoustics approach", *Appl. Phys. Lett.* **98**, 011901 (2011).
- 226.C. Dongre, J. van Weerd, G.A.J. Besselink, R. Martinez Vazquez, R. Osellame, G. Cerullo, R. van Weeghel, H.H. van den Vlekkert, H.J.W.M. Hoekstra and M.Pollnau, "Modulation-frequency encoded multi-color fluorescent DNA analysis in an optofluidic chip", *Lab Chip* **11**, 679-683 (2011).
- 227.G. Cerullo, A. Baltuška, O.D. Mücke, C. Vozzi, "Few-optical-cycle light pulses with passive carrier-envelope phase stabilization", *Laser Photonics Rev.* **5**, 323-351 (2011).
- 228.R. Osellame, H.J.W.M. Hoekstra, G. Cerullo, M. Pollnau, "Femtosecond laser microstructuring: an enabling tool for optofluidic lab-on-chips", *Laser Photonics Rev.* **5**, 442-463 (2011).
- 229.G. Grancini, D. Polli, D. Fazzi, J. Cabanillas-Gonzalez, G. Cerullo, G. Lanzani, "Transient Absorption Imaging of P3HT:PCBM Photovoltaic Blend: Evidence For Interfacial Charge Transfer State", *J. Phys. Chem. Letters* **2**, 1099-1105 (2011).
- 230.R. Martínez Vázquez, S.M. Eaton, R. Ramponi, G. Cerullo, and R. Osellame, "Fabrication of binary Fresnel lenses in PMMA by femtosecond laser surface ablation," *Opt. Express* **19**, 11597-11604 (2011).
- 231.C. Manzoni, J. Moses, F.X. Kärtner, G. Cerullo, "Excess Quantum Noise in Optical Parametric Chirped-Pulse Amplification", *Opt. Express* **19**, 8357-8366 (2011).
- 232.M. Conforti, F. Baronio, C. De Angelis, M. Marangoni, and G. Cerullo, "Theory and experiments on multistep parametric processes in nonlinear optics," *J. Opt. Soc. Am. B* **28**, 892-895 (2011).
- 233.E. Pontecorvo, C. Ferrante, M. Ferretti, M. Ortolani, D. Polli, G. Ruocco, G. Cerullo, and T. Scopigno, "Response to "Comment on 'Visualizing coherent phonon propagation in the 100 GHz range: A broadband picosecond acoustic approach'", *Appl. Phys. Lett.* **98**, 246102 (2011).
- 234.D. Polli, I. Lisiecki, H. Portales, G. Cerullo, M.-P. Pileni, "Low Sensitivity of Acoustic Breathing Mode Frequency in Co Nanocrystals upon Change in Nanocrystallinity", *ACS Nano* **5**, 5785-5791 (2011).
- 235.D. Wegkamp, D. Brida, S. Bonora, G. Cerullo, J. Stähler, M. Wolf, and S. Wall, "Phase retrieval and compression of low-power white-light pulses", *Appl. Phys. Lett.* **99**, 101101 (2011).
- 236.S.-W. Huang, G. Cirimi, J. Moses, K.-H. Hong, S. Bhardwaj, J.R. Birge, L.-J. Chen, E. Li, B.J. Eggleton, G. Cerullo, F.X. Kärtner, "High-energy pulse synthesis with sub-cycle waveform control for strong-field physics", *Nature Photonics* **5**, 475-479 (2011).

- 237.M.W.B. Wilson, A. Rao, J. Clark, R. Sai Santosh Kumar, D. Brida, G. Cerullo, R. H. Friend, "Ultrafast Dynamics of Exciton Fission in Polycrystalline Pentacene", *J. Am. Chem. Soc.* **133**, 11830-11833 (2011).
- 238.V. Kumar, R. Osellame, R. Ramponi, G. Cerullo, and M. Marangoni, "Background-free broadband CARS spectroscopy from a 1-MHz ytterbium laser," *Opt. Express* **19**, 15143-15148 (2011).
- 239.T. Virgili, D. Coles, A.M. Adawi, C. Clark, P. Michetti, S.K. Rajendran, D. Brida, D. Polli, G. Cerullo, D.G. Lidzey, "Ultrafast polariton relaxation dynamics in an organic semiconductor microcavity", *Phys. Rev. B* **83**, 245309 (2011).
240. R. Suriano, A. Kuznetsov, S.M. Eaton, R. Kiyam, G. Cerullo, R. Osellame, B.N. Chichkov, M. Levi, S. Turri, "Femtosecond laser ablation of polymeric substrates for the fabrication of microfluidic channels", *Appl. Surf. Sci.* **257**, 6243-6250 (2011).
- 241.C. De Marco, S.M. Eaton, M. Levi, G. Cerullo, S. Turri, R. Osellame, "High-Fidelity Solvent-Resistant Replica Molding of Hydrophobic Polymer Surfaces Produced by Femtosecond Laser Nanofabrication", *Langmuir* **27**, 8391–8395 (2011).
- 242.P. Vasa, R. Pomraenke, G. Cirmi, E. De Re, W. Wang, S. Schwieger, D. Leipold, E. Runge, G. Cerullo, C. Lienau, "Ultrafast manipulation of the Rabi splitting in metal-molecular aggregate hybrid nanostructures", *Phys. Status Sol. C* **8**, 1113-1116 (2011).
- 243.F. Serra, K.C. Vishnubhatla, M. Buscaglia, R. Cerbino, R. Osellame, G. Cerullo and T. Bellini, "Topological defects of nematic liquid crystals confined in porous networks", *Soft Matter*, **7**, 10945-10950 (2011).
- 244.L. Lüer, V. Moulisová, S. Henry, D. Polli, T.H.P. Brotsudarmo, S. Hoseinkhani, D. Brida, G. Lanzani, G. Cerullo, and R.J. Cogdell, "Tracking energy transfer between light harvesting complex 2 and 1 in photosynthetic membranes grown under high and low illumination", *Proc. Natl.Acad. Sci. USA* **109**, 1473-1478 (2012) DOI: 10.1073/pnas.1113080109.
- 245.S.-W. Huang, G. Cirmi, J. Moses, K.-H. Hong, S. Bhardwaj, J.R. Birge, L.-J. Chen, I.V. Kabakova, E. Li, B.J. Eggleton, G. Cerullo and F.X. Kärtner, "Optical waveform synthesizer and its application to high-harmonic generation", *J. Phys. B: At. Mol. Opt. Phys.* **45**, 074009 (2012) doi:10.1088/0953-4075/45/7/074009
- 246.T. Virgili, G. Grancini, E. Molotokaite, I. Suarez-Lopez, S.K. Rajendran, A. Liscio, V. Palermo, G. Lanzani, D. Polli, and G. Cerullo, "Confocal ultrafast pump–probe spectroscopy: a new technique to explore nanoscale composites", *Nanoscale* **4**, 2219-2226 (2012).
- 247.D. Brida, C. Manzoni, G. Cirmi, D. Polli, G. Cerullo, "Tracking Ultrafast Energy Flow in Molecules Using Broadly Tunable Few-Optical-Cycle Pulses," *IEEE J.S.T.Q.E.* **18**, 329-339 (2012) doi: 10.1109/JSTQE.2011.2125782.
- 248.L. Amato, Y. Gu, N. Bellini, S.M. Eaton, G. Cerullo and R. Osellame, "Integrated three-dimensional filter separates nanoscale from microscale elements in a microfluidic chip", *Lab Chip* **12**, 1135-1142 (2012). DOI: 10.1039/C2LC21116E.

- 249.A.R. Bizzarri, D. Brida, S. Santini, G. Cerullo, and S. Cannistraro, "Ultrafast Pump-Probe Study of the Excited-State Charge-Transfer Dynamics in Blue Copper Rusticyanin", *J. Phys. Chem. B* **116**, 4192-4198 (2012).
- 250.M. Maiuri, D. Polli, D. Brida, L. Lüer, A.M. LaFountain, M. Fuciman, R.J. Cogdell, H.A. Frank, and G. Cerullo, "Solvent-dependent activation of intermediate excited states in the energy relaxation pathways of spheroidene", *Phys. Chem. Chem. Phys.* **14**, 6312-6319 (2012).
- 251.D. Fazzi, G. Grancini, M. Maiuri, D. Brida, G. Cerullo, and G. Lanzani, "Ultrafast internal conversion in a low band gap polymer for photovoltaics: experimental and theoretical study", *Phys. Chem. Chem. Phys.* **14**, 6367-6374 (2012).
- 252.C. Manzoni, S.-W. Huang, G. Cirimi, P. Farinello, J. Moses, F. X. Kärtner, and G. Cerullo, "Coherent synthesis of ultra-broadband optical parametric amplifiers," *Opt. Lett.* **37**, 1880-1882 (2012)
- 253.P. Biagioni, D. Brida, J.-S. Huang, J. Kern, L. Duò, B. Hecht, M. Finazzi, and G. Cerullo, "Dynamics of Four-Photon Photoluminescence in Gold Nanoantennas", *Nano Letters* **12**, 2941-2947 (2012). DOI: 10.1021/nl300616s.
- 254.D. Brida, C. Manzoni, and G. Cerullo, "Phase-locked pulses for two-dimensional spectroscopy by a birefringent delay line," *Opt. Lett.* **37**, 3027-3029 (2012). DOI: 10.1364/OL.37.003027.
- 255.S. M. Eaton, C. De Marco, R. Martinez-Vazquez, R. Ramponi, S. Turri, G. Cerullo, and R. Osellame, "Femtosecond laser microstructuring for polymeric lab-on-chips", *J. Biophoton.* **5**, 687-702 (2012). DOI: 10.1002/jbio.201200048.
- 256.V. Kumar, M. Casella, E. Molotokaite, D. Polli, G. Cerullo, and M. Marangoni, "Coherent Raman spectroscopy with a fiber-format femtosecond oscillator", *J. Raman Spectrosc.* **43**, 662-667 (2012). DOI: 10.1002/jrs.3160
- 257.P. N. Malevich, D. Kartashov, Z. Pu, S. Ališauskas, A. Pugžlys, A. Baltuška, L. Giniūnas, R. Danielius, A. A. Lanin, A. M. Zheltikov, M. Marangoni, and G. Cerullo, "Ultrafast-laser-induced backward stimulated Raman scattering for tracing atmospheric gases," *Opt. Express* **20**, 18784-18794 (2012). DOI: 10.1364/OE.20.018784.
- 258.A. Weigel, M. Pfaffe, M. Sajadi, R. Mahrwald, R. Improta, V. Barone, D. Polli, G. Cerullo, N.P. Ernsting, and F. Santoro, "Barrierless photoisomerisation of the "simplest cyanine": Joining computational and femtosecond optical spectroscopies to trace the full reaction path", *Phys. Chem. Chem. Phys.* **14**, 13350 (2012). DOI: 10.1039/c2cp41522d.
- 259.G. Della Valle, M. Conforti, S. Longhi, G. Cerullo, and D. Brida, "Real-time optical mapping of the dynamics of nonthermal electrons in thin gold films", *Phys. Rev. B* **86**, 155139 (2012). DOI: 10.1103/PhysRevB.86.155139.
- 260.V. Kumar, M. Casella, E. Molotokaite, D. Gatti, P. Kukura, C. Manzoni, D. Polli, M. Marangoni, and G. Cerullo, "Balanced-detection Raman-induced Kerr-effect spectroscopy", *Phys. Rev. A* **86**, 053810 (2012). DOI: 10.1103/PhysRevA.86.053810.
- 261.L. Fieramonti, A. Bassi, E.A. Foglia, A. Pistocchi, C. D'Andrea, G. Valentini, R. Cubeddu, S. De Silvestri, G. Cerullo, F. Cotelli, "Time-Gated Optical Projection Tomography Allows

- Visualization of Adult Zebrafish Internal Structures”, PLoS ONE **7**, e50744 (2012). DOI: 10.1371/journal.pone.0050744
- 262.C. De Marco, S.M. Eaton, R. Martinez-Vazquez, S. Rampini, G. Cerullo, M. Levi, S. Turri, R. Osellame, “Solvent vapor treatment controls surface wettability in PMMA femtosecond-laser-ablated microchannels”, *Microfluid. Nanofluid.* **14**, 171 (2013).
 - 263.G. Grancini, M. Maiuri, D. Fazzi, A. Petrozza, H.-J. Egelhaaf, D. Brida, G. Cerullo, and G. Lanzani, “Hot exciton dissociation in polymer solar cells”, *Nature Materials* **12**, 29 (2013). DOI: 10.1038/nmat3502
 - 264.M.T. Raimondi, S.M. Eaton, M. Laganà, V. Aprile, M.M. Nava, G. Cerullo, R. Osellame, “Three-dimensional structural niches engineered via two-photon laser polymerization promote stem cell homing”, *Acta Biomater.* **9**, 4579 (2013). DOI: 10.1016/j.actbio.2012.08.022.
 - 265.G. Grancini, R.S. Santosh Kumar, M. Maiuri, J. Fang, W.T.S. Huck, M.J.P. Alcocer, G. Lanzani, G. Cerullo, A. Petrozza, and H.J. Snaith, “Panchromatic “Dye-Doped” Polymer Solar Cells: From Femtosecond Energy Relays to Enhanced Photo-Response”, *J. Phys. Chem. Letters* **4**, 442-447 (2013).
 - 266.P. Vasa, W. Wang, R. Pomraenke, M. Lammers, M. Maiuri, C. Manzoni, G. Cerullo, and Ch. Lienau, “Real-time observation of ultrafast Rabi oscillations between excitons and plasmons in metal nanostructures with J-aggregates”, *Nature Photonics* **7**, 128 (2013).
 - 267.N. Goubet, C. Yan, D. Polli, H. Portalès, I. Arfaoui, G. Cerullo, and M.-P. Pileni, “Modulating Physical Properties of Isolated and Self-Assembled Nanocrystals through Change in Nanocrystallinity”, *Nano Lett.* **13**, 504-508 (2013) (doi: 10.1021/nl303898y).
 - 268.E. Molotokaite, V. Kumar, C. Manzoni, D. Polli, G. Cerullo, M. Marangoni, “Raman-induced Kerr effect microscopy with balanced detection”, *J. Raman Spectrosc.* **44**, 1385-1392 (2013).
 - 269.C.A. Rozzi, S.M. Falke, N. Spallanzani, A. Rubio, E. Molinari, D. Brida, M. Maiuri, G. Cerullo, H. Schramm, J. Christoffers, Ch. Lienau, “Quantum coherence controls the charge separation in a prototypical artificial light-harvesting system”, *Nature Communications* **4**, 1602 (2013) (doi:10.1038/ncomms2603).
 - 270.C. Ferrante, E. Pontecorvo, G. Cerullo, A. Chiasera, G. Ruocco, W. Schirmacher, T. Scopigno, “Acoustic dynamics of network-forming glasses at mesoscopic wavelengths”, *Nature Communications* **4**, 1793 (2013) (doi:10.1038/ncomms2826).
 - 271.J. Hauer, M. Maiuri, D. Viola, V. Lukes, S. Henry, A. M. Carey, R. J. Cogdell, G. Cerullo, and D. Polli, “Explaining the Temperature Dependence of Spirilloxanthin’s S* Signal by an Inhomogeneous Ground State Model”. *J. Phys. Chem. A* **117**, 6303-6310 (2013). (doi 10.1021/jp4011372).
 - 272.R. Tautz, E. Da Como, Ch. Wiebeler, G. Soavi, I. Dumsch, N. Fröhlich, G. Grancini, S. Allard, U. Scherf, G. Cerullo, S. Schumacher, and J. Feldmann, “Charge Photogeneration in Donor–Acceptor Conjugated Materials: Influence of Excess Excitation Energy and Chain Length”, *J. Am. Chem. Soc.* **135**, 4282-4290 (2013). (doi: 10.1021/ja309252a).

- 273.G. Soavi, F. Scotognella, D. Brida, T. Hefner, F. Späth, M. R. Antognazza, T. Hertel, G. Lanzani, and G. Cerullo, “Ultrafast Charge Photogeneration in Semiconducting Carbon Nanotubes”, *J. Phys. Chem. C* **117**, 10849–10855 (2013). (doi: 10.1021/jp404009z)
- 274.F. Serra, S.M. Eaton, R. Cerbino, M. Buscaglia, G. Cerullo, R. Osellame, T. Bellini, “Nematic Liquid Crystals Embedded in Cubic Microlattices: Memory Effects and Bistable Pixels”, *Adv. Funct. Mater.* **23**, 3990-3994 (2013) (doi: 10.1002/adfm.201203792).
- 275.M. Maiuri, J. J. Snellenburg, I. H. M. van Stokkum, S. Pillai, K. WongCarter, D. Gust, T. A. Moore, A. L. Moore, R. van Grondelle, G. Cerullo, and D. Polli, “Ultrafast Energy Transfer and Excited State Coupling in an Artificial Photosynthetic Antenna”, *J. Phys. Chem. B* **117**, 14183–14190 (2013). (doi: 10.1021/jp401073w).
- 276.I. Lisiecki, D. Polli, C. Yan, G. Soavi, E. Duval, G. Cerullo, and M.-P. Pileni, “Coherent Longitudinal Acoustic Phonons in Three-Dimensional Supracrystals of Cobalt Nanocrystals”, *Nano Lett.* **13**, 4914-4919 (2013). (doi: 10.1021/nl4028704)
- 277.A.J. Musser, M. Al-Hashimi, M. Maiuri, D. Brida, M. Heeney, G. Cerullo, R.H. Friend, and J. Clark, “Activated Singlet Exciton Fission in a Semiconducting Polymer”, *J. Am. Chem. Soc.* **135**, 12747-12754 (2013). (doi: 10.1021/ja405427j).
- 278.D. Brida, A. Tomadin, C. Manzoni, Y.J. Kim, A. Lombardo, S. Milana, R.R. Nair, K.S. Novoselov, A.C. Ferrari, G. Cerullo, M. Polini, “Ultrafast collinear scattering and carrier multiplication in graphene”, *Nat. Commun.* **4**, 1987 (2013) (doi: 10.1038/ncomms2987).
- 279.A. Tomadin, D. Brida, G. Cerullo, A.C. Ferrari, and M. Polini, “Nonequilibrium dynamics of photoexcited electrons in graphene: Collinear scattering, Auger processes, and the impact of screening”, *Phys. Rev. B* **88**, 035430 (2013) (doi: 10.1103/PhysRevB.88.035430).
- 280.M. Bouzin, G. Chirico, L. D’Alfonso, L. Sironi, G. Soavi, G. Cerullo, B. Campanini, and M. Collini, “Stimulated Emission Properties of Fluorophores by CW-STED Single Molecule Spectroscopy”, *J. Phys. Chem. B* **117**, 16405-16415 (2013) (doi: 10.1021/jp409330t).
- 281.M. Wächtler, M. Maiuri, D. Brida, J. Popp, S. Rau, G. Cerullo, B. Dietzek, “Utilizing Ancillary Ligands to Optimize the Photophysical Properties of 4H-Imidazole Ruthenium Dyes”, *ChemPhysChem.* **14**, 2973-2983 (2013). (doi: 10.1002/cphc.201300383).
- 282.I. Rivalta, A. Nenov, G. Cerullo, S. Mukamel, M. Garavelli, “Ab initio simulations of two-dimensional electronic spectra: The SOS//QM/MM approach”, *Int. J. Quantum Chem.* **114**, 85-93 (2014) (doi: <http://dx.doi.org/10.1002/qua.24511>).
- 283.B. Piglosiewicz, S. Schmidt, D.J. Park, J. Vogelsang, P. Groß, C. Manzoni, P. Farinello, G. Cerullo, and Ch. Lienau, “Carrier-envelope phase effects on the strong-field photoemission of electrons from metallic nanostructures”, *Nature Photonics* **8**, 37-42 (2014). (doi: 10.1038/nphoton.2013.288).
- 284.A. Nenov, I. Rivalta, G. Cerullo, S. Mukamel, and M. Garavelli, “Disentangling Peptide Configurations via Two-Dimensional Electronic Spectroscopy: Ab Initio Simulations Beyond the Frenkel Exciton Hamiltonian”, *J. Phys. Chem. Lett.* **5**, 767 (2014). DOI: 10.1021/jz5002314

- 285.A. Nenov, S. Beccara, I. Rivalta, G. Cerullo, S. Mukamel and M. Garavelli, "Tracking Conformational Dynamics of Polypeptides by Nonlinear Electronic Spectroscopy of Aromatic Residues: A First-Principles Simulation Study", *ChemPhysChem* **15**, 3282 (2014). doi:10.1002/cphc.201402374
- 286.D. Polli, O. Weingart, D. Brida, E. Poli, M. Maiuri, K.M. Spillane, A. Bottoni, P. Kukura, R.A. Mathies, G. Cerullo, M. Garavelli, "Wavepacket splitting and two-pathway deactivation in the photoexcited visual pigment isorhodopsin", *Angew. Chem. Intl. Ed.* **53**, 2504-2507 (2014). doi: <http://dx.doi.org/10.1364/OL.39.001485>
- 287.Wei Wang, Parinda Vasa, Robert Pomraenke, Ralf Vogelgesang, Antonietta De Sio, Ephraim Sommer, Margherita Maiuri, Cristian Manzoni, Giulio Cerullo, and Christoph Lienau "Interplay between Strong Coupling and Radiative Damping of Excitons and Surface Plasmon Polaritons in Hybrid Nanostructures", *ACS Nano* **8**, 1056-1064 (2014). DOI: 10.1021/nn405981k.
- 288.F. Venturini, R. Martinez Vazquez, R. Osellame, G. Cerullo, M. Sansotera, and W. Navarrini, "Maskless, fast and highly selective etching of fused silica with gaseous fluorine and gaseous hydrogen fluoride", *J. Micromech. Microeng.* **24**, 025004 (2014). doi:10.1088/0960-1317/24/2/025004.
- 289.J. Réhault, M. Maiuri, C. Manzoni, D. Brida, J. Helbing, and G. Cerullo, "2D IR spectroscopy with phase-locked pulse pairs from a birefringent delay line," *Opt. Express* **22**, 9063-9072 (2014). Doi: 10.1364/OE.22.009063.
- 290.A. Cartella, S. Bonora, M. Först, G. Cerullo, A. Cavalleri, and C. Manzoni, "Pulse shaping in the mid-infrared by a deformable mirror," *Opt. Lett.* **39**, 1485-1488 (2014). Doi: 10.1364/OL.39.001485.
- 291.C. Gadermaier, V. V. Kabanov, A. S. Alexandrov, L. Stojchevska, T. Mertelj, C. Manzoni, G. Cerullo, N. D. Zhigadlo, J. Karpinski, Y. Q. Cai, X. Yao, Y. Toda, M. Oda, S. Sugai, and D. Mihailovic, "Strain-Induced Enhancement of the Electron Energy Relaxation in Strongly Correlated Superconductors", *Phys. Rev. X* **4**, 011056 (2014). DOI: 10.1103/PhysRevX.4.011056.
- 292.S. Dal Conte, M. Conforti, D. Petti, E. Albisetti, S. Longhi, R. Bertacco, C. De Angelis, G. Cerullo, and G. Della Valle, "Disentangling electrons and lattice nonlinear optical response in metal-dielectric Bragg filters", *Phys. Rev. B* **89**, 125122 (2014).
- 293.P. Then, G. Razinskas, T. Feichtner, P. Haas, A. Wild, N. Bellini, R. Osellame, G. Cerullo, and B. Hecht "Remote detection of single emitters via optical waveguides", *Phys. Rev. A* **89**, 053801 (2014) DOI: <http://dx.doi.org/10.1103/PhysRevA.89.053801>.
- 294.N. Coluccelli, V. Kumar, M. Cassinerio, G. Galzerano, M. Marangoni, and G. Cerullo, "Er/Tm: fiber laser system for coherent Raman microscopy," *Opt. Lett.* **39**, 3090-3093 (2014).
- 295.S. M. Falke, C. A. Rozzi, D. Brida, M. Maiuri, M. Amato, E. Sommer, A. De Sio, A. Rubio, G. Cerullo, E. Molinari, and Ch. Lienau, "Coherent ultrafast charge transfer in an organic photovoltaic blend", *Science* **344**, 1001-1005 (2014). [DOI:10.1126/science.1249771]

- 296.M. Ballottari, M.J.P. Alcocer, C. D'Andrea, D. Viola, T. K. Ahn, A. Petrozza, D. Polli, G.R. Fleming, G. Cerullo, and R. Bassi, "Regulation of photosystem I light harvesting by zeaxanthin", *Proc. Natl.Acad. Sci. USA* **111**, E2431-E2438 (2014) doi:10.1073/pnas.1404377111.
- 297.Rocio Borrego Varillas, Alessia Candeo, Daniele Viola, Marco Garavelli, Sandro De Silvestri, Giulio Cerullo, and Cristian Manzoni, "Microjoule-level, tunable sub-10 fs UV pulses by broadband sum-frequency generation," *Opt. Lett.* **39**, 3849-3852 (2014). Doi: 10.1364/OL.39.003849.
- 298.F. Novelli, G. De Filippis, V. Cataudella, M. Esposito, I. Vergara, F. Cilento, E. Sindici, A. Amaricci, C. Giannetti, D. Prabhakaran, S. Wall, A. Perucchi, S. Dal Conte, **G. Cerullo**, M. Capone, A. Mishchenko, M. Grüninger, N. Nagaosa, F. Parmigiani and D. Fausti, "Witnessing the formation and relaxation of dressed quasi-particles in a strongly correlated electron system", *Nat. Commun.* **5**, 5112 (2014).DOI:10.1038/ncomms6112.
- 299.Jan Vogelsang, Jörg Robin, Björn Piglosiewicz, Cristian Manzoni, Paolo Farinello, Stefan Melzer, Philippe Feru, Giulio Cerullo, Christoph Lienau, and Petra Groß, "High passive CEP stability from a few-cycle, tunable NOPA-DFG system for observation of CEP-effects in photoemission," *Opt. Express* **22**, 25295-25306 (2014). Doi: 10.1364/OE.22.025295.
- 300.I. Rivalta, A. Nenov, O. Weingart, **G. Cerullo**, M. Garavelli, and S. Mukamel, "Modelling Time-Resolved Two-Dimensional Electronic Spectroscopy of the Primary Photoisomerization Event in Rhodopsin", *J. Phys. Chem. B* **118**, 8396-8405 (2014). DOI: 10.1021/jp502538m.
- 301.V. Kumar, N. Coluccelli, M. Cassinerio, M. Celebrano, A. Nunn, M. Levrero, T. Scopigno, G. Cerullo and M. Marangoni, "Low-noise, vibrational phase-sensitive chemical imaging by balanced detection RIKE", *J. Raman Spectrosc.* **46**, 109-116 (2015). <http://dx.doi.org/10.1002/jrs.4584>.
- 302.Y. Ben-Shahar, F. Scotognella, N. Waiskopf, I. Kriegel, S. Dal Conte, G. Cerullo, and U. Banin, "Effect of Surface Coating on the Photocatalytic Function of Hybrid CdS–Au Nanorods". *Small*, **11**, 462–471 (2015). doi:10.1002/smll.201402262
- 303.P. Vasa, W. Wang, R. Pomraenke, M. Maiuri, C. Manzoni, G. Cerullo, and C. Lienau, "Optical Stark Effects in J-aggregate/Metal Hybrid Nanostructures Exhibiting Strong Exciton-Surface Plasmon Polariton Interaction", *Phys. Rev. Lett.* **114**, 036802 (2015) 10.1103/PhysRevLett.114.036802.
- 304.I. Delfino, D. Viola, G. Cerullo, M. Lepore, "Ultrafast excited-state charge-transfer dynamics in laccase type I copper site", *Biophys. Chem.* **200–201**, 41-47 (2015) <http://dx.doi.org/10.1016/j.bpc.2015.03.003>.
- 305.E. A. A. Pogna, C. Rodríguez-Tinoco, G. Cerullo, C. Ferrante, J. Rodríguez-Viejo, T. Scopigno, "Probing equilibrium glass flow up to exapoise viscosities", *PNAS* **112**, 2331-2336 (2015). doi:10.1073/pnas.1423435112.
- 306.M. Maiuri, J. Réhault, A.-M. Carey, K. Hacking, M. Garavelli, L. Lüer, D. Polli, R.J. Cogdell and **G. Cerullo**, "Ultra-broadband 2D electronic spectroscopy of carotenoid-

- bacteriochlorophyll interactions in the LH1 complex of a purple bacterium”, J. Chem. Phys. **142**, 212433 (2015). <http://dx.doi.org/10.1063/1.4919056>
- 307.J.W. Jarrett, X. Liu, P.F. Nealey, R.A. Vaia, G. Cerullo and K.L. Knappenberger Jr., “Communication: SHG-detected circular dichroism imaging using orthogonal phase-locked laser pulses”, J. Chem. Phys. **142**, 151101 (2015). DOI: <http://dx.doi.org/10.1063/1.4918972>.
- 308.P. N. Malevich, R. Maurer, D. Kartashov, S. Ališauskas, A. A. Lanin, A. M. Zheltikov, M. Marangoni, **G. Cerullo**, A. Baltuška, and A. Pugžlys, "Stimulated Raman gas sensing by backward UV lasing from a femtosecond filament," Opt. Lett. **40**, 2469-2472 (2015) doi: 10.1364/OL.40.002469
- 309.M. Wächtler, J. Guthmuller, S. Kupfer, M. Maiuri, D. Brida, J. Popp, S. Rau, **G. Cerullo**, B. Dietzek, “Ultrafast Intramolecular Relaxation and Wave-Packet Motion in a Ruthenium-Based Supramolecular Photocatalyst”, Chemistry- A European Journal **21**, 7668-7674 (2015). DOI: 10.1002/chem.201406350.
- 310.M. Knipp, H. Ogata, G. Soavi, G. Cerullo, A. Allegri, S. Abbruzzetti, S. Bruno, C. Viappiani, A. Bidon-Chanal, F.J. Luque, “Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7”, F1000Research **4**, 45 (2015) doi: 10.12688/f1000research.6060.1.
- 311.G. Brancato, G. Signore, P. Neyroz, D. Polli, **G. Cerullo**, G. Abbandonato, L. Nucara, V. Barone, F. Beltram, and R. Bizzarri, “Dual Fluorescence through Kasha’s Rule Breaking: An Unconventional Photomechanism for Intracellular Probe Design”, J. Phys. Chem. B **119**, 6144-6154 (2015) DOI: 10.1021/acs.jpcc.5b01119
- 312.A. Nenov, A. Giussani, J. Segarra-Martí, V.K. Jaiswal, I. Rivalta, **G. Cerullo**, S. Mukamel and M. Garavelli, “Modeling the high-energy electronic state manifold of adenine: Calibration for nonlinear electronic spectroscopy”, J. Chem. Phys. **142**, 212443 (2015); <http://dx.doi.org/10.1063/1.4921016>.
- 313.D. Di Nuzzo, D. Viola, F.S.U. Fischer, **G. Cerullo**, S. Ludwigs, and E. Da Como, “Enhanced Photogeneration of Polaron Pairs in Neat Semicrystalline Donor–Acceptor Copolymer Films via Direct Excitation of Interchain Aggregates”, J. Phys. Chem. Lett. **6**, 1196-1203 (2015). DOI: 10.1021/acs.jpcclett.5b00218
- 314.G. Della Valle, D. Polli, P. Biagioni, C. Martella, M. C. Giordano, M. Finazzi, S. Longhi, L. Duò, **G. Cerullo**, and F. Buatier de Mongeot, ”Self-organized plasmonic metasurfaces for all-optical modulation”, Phys. Rev. B **91**, 235440 (2015). <http://dx.doi.org/10.1103/PhysRevB.91.235440>
- 315.S. K. Rajendran, W. Wang, D. Brida, A. De Sio E. Sommer, R. Vogelgesang, D. Coles, D. G. Lidzey, **G. Cerullo**, C. Lienau, and T. Virgili, “Direct evidence of Rabi oscillations and antiresonance in a strongly coupled organic microcavity”, Phys. Rev. B **91**, 201305(R) (2015). <http://dx.doi.org/10.1103/PhysRevB.91.201305>
- 316.T. Borzda, Ch. Gadermaier, N. Vujicic, P. Topolovsek, M. Borovsak, T. Mertelj, D. Viola, C. Manzoni, E.A.A. Pogna, D. Brida, M.R. Antognazza, F. Scotognella, G. Lanzani, **G. Cerullo**

- and D. Mihailovic, “Charge Photogeneration in Few-Layer MoS₂”, *Adv. Funct. Mater.* **25**, 3351 (2015).
317. G. Batignani, D. Bossini, N. Di Palo, C. Ferrante, E. Pontecorvo, **G. Cerullo**, A. Kimel and T. Scopigno, “Probing ultrafast photo-induced dynamics of the exchange energy in a Heisenberg antiferromagnet”, *Nature Photon.* **9**, 506–510 (2015) doi:10.1038/nphoton.2015.121
318. I. Concina, C. Manzoni, G. Grancini, M. Celikin, A. Soudi, F. Rosei, M. Zavelani-Rossi, **G. Cerullo** and A. Vomiero, “Modulating Exciton Dynamics in Composite Nanocrystals for Excitonic Solar Cells”, *J. Phys. Chem. Lett.* **6**, 2489-2495 (2015). DOI: 10.1021/acs.jpcclett.5b00765
319. G. Soavi, F. Scotognella, D. Viola, T. Hefner, T. Hertel, **G. Cerullo** and G. Lanzani, “High energetic excitons in carbon nanotubes directly probe charge-carriers”, *Sci. Rep.* **5**, 9681 (2015). doi:10.1038/srep09681
320. M. Zavelani-Rossi, D. Polli, S. Kochtcheev, A.-L. Baudrion, J. Béal, V. Kumar, E. Molotokaite, M. Marangoni, S. Longhi, G. Cerullo, P.-M. Adam, and G. Della Valle, “Transient Optical Response of a Single Gold Nanoantenna: The Role of Plasmon Detuning”, *ACS Photonics* **2**, 521-529, 2015 DOI: 10.1021/ph5004175.
321. M. Celebrano, X. Wu, M. Baselli, S. Großmann, P. Biagioni, A. Locatelli, C. De Angelis, **G. Cerullo**, R. Osellame, B. Hecht, L. Duò, F. Ciccacci and M. Finazzi, “Mode matching in multiresonant plasmonic nanoantennas for enhanced second harmonic generation”, *Nature Nanotech.* **10**, 412 (2015).
322. A.J. Musser, M. Maiuri, D. Brida, G. Cerullo, R.H. Friend, and J. Clark, “The Nature of Singlet Exciton Fission in Carotenoid Aggregates”, *J. Am. Chem. Soc.* **137**, 5130-5139 (2015). DOI: 10.1021/jacs.5b01130.
323. O.D. Mucke, S. Fang, G. Cirimi, G. M. Rossi, S.-H. Chia, H. Ye, Y. Yang, R. Mainz, C. Manzoni, P. Farinello, **G. Cerullo**, and F.X. Kartner, “Toward Waveform Nonlinear Optics Using Multimillijoule Sub-Cycle Waveform Synthesizers”, *IEEE J.S.T.Q.E.* **21**, 1-12 (2015) doi: 10.1109/JSTQE.2015.2426653
324. L. Lüer, A.-M. Carey, S. Henry, M. Maiuri, K. Hacking, D. Polli, G. Cerullo, R.J. Cogdell, “Elementary Energy Transfer Pathways in *Allochrocatium vinosum* Photosynthetic Membranes”, *Biophys. Journal* **109**, 1885 (2015). DOI: 10.1016/j.bpj.2015.09.008.
325. S. Dal Conte, L. Vidmar, D. Golež, M. Mierzejewski, G. Soavi, S. Peli, F. Banfi, G. Ferrini, R. Comin, B. M. Ludbrook, L. Chauviere, N. D. Zhigadlo, H. Eisaki, M. Greven, S. Lupi, A. Damascelli, D. Brida, M. Capone, J. Bonča, **G. Cerullo** and C. Giannetti, “Snapshots of the retarded interaction of charge carriers with ultrafast fluctuations in cuprates”, *Nat. Phys.* **11**, 421 (2015). doi:10.1038/nphys3265
326. **G. Cerullo**, S. De Silvestri and M. Nisoli, “Light at the extremes: From femto- to atto-science for real-time studies of atomic and electronic motions”, *EPL* **112**, 24001 (2015). doi: 10.1209/0295-5075/112/24001

- 327.R. Borrego-Varillas, A. Oriana, F. Branchi, S. De Silvestri, **G. Cerullo**, and C.ù, "Optimized ancillae generation for ultra-broadband two-dimensional spectral-shearing interferometry," *J. Opt. Soc. Am. B* **32**, 1851-1855 (2015) doi: 10.1364/JOSAB.32.001851.
- 328.J. Réhault, F. Crisafi, V. Kumar, G. Ciardi, M. Marangoni, **G. Cerullo**, and D. Polli, "Broadband stimulated Raman scattering with Fourier-transform detection," *Opt. Express* **23**, 25235-25246 (2015) doi: 10.1364/OE.23.025235.
- 329.L. Moretti, L. Criante, G. Lanzani, S. De Silvestri, **G. Cerullo** and F. Scotognella, "Field-Induced Stimulated Emission in a Polymer–Liquid Crystal Mixture", *J. Phys. Chem. C* **119**, 23632-23637 (2015) DOI: 10.1021/acs.jpcc.5b0534.
- 330.G. Soavi, A. Grupp, A. Budweg, F. Scotognella, T. Hefner, T. Hertel, G. Lanzani, A. Leitenstorfer, **G. Cerullo** and D. Brida, "Below-gap excitation of semiconducting single-wall carbon nanotubes", *Nanoscale* **7**, 18337-18342 (2015) DOI: 10.1039/C5NR05218A.
- 331.M. Maiuri, I. Delfino, **G. Cerullo**, C. Manzoni, V. Pelmenschikov, Y. Guo, H. Wang, L. B. Gee, C. H. Dapper, W. E. Newton, S. P. Cramer, "Low frequency dynamics of the nitrogenase MoFe protein via femtosecond pump probe spectroscopy — Observation of a candidate promoting vibration", *J. Inorg. Biochem.* **153**, 128-135 (2015). <http://dx.doi.org/10.1016/j.jinorgbio.2015.07.005>.
- 332.S. Dal Conte, F. Bottegoni, E. A. A. Pogna, D. De Fazio, S. Ambrogio, I. Bargigia, C. D'Andrea, A. Lombardo, M. Bruna, F. Ciccacci, A. C. Ferrari, G. Cerullo, and M. Finazzi, "Ultrafast valley relaxation dynamics in monolayer MoS₂ probed by nonequilibrium optical techniques", *Phys. Rev. B* **92**, g (2015). DOI: [dx.doi.org/10.1103/PhysRevB.92.235425](https://doi.org/10.1103/PhysRevB.92.235425).
- 333.Y. Ben-Shahar, F. Scotognella, I. Kriegel, L. Moretti, **G. Cerullo**, E. Rabani and U. Banin, "Optimal metal domain size for photocatalysis with hybrid semiconductor-metal nanorods", *Nature Commun.* **7**, 10413 (2016). doi:10.1038/ncomms1041
- 334.T. Stoll, E. Sgrò, J.W. Jarrett, J. Réhault, A. Oriana, L. Sala, F. Branchi, **G. Cerullo**, and K.L. Knappenberger, Jr, "Superatom State-Resolved Dynamics of the Au₂₅(SC₈H₉)₁₈– Cluster from Two-Dimensional Electronic Spectroscopy", *J. Am. Chem. Soc.* **138**, 1788-1791 (2016). DOI: 10.1021/jacs.5b12621
- 335.G. Soavi, I. Tempra, M.F. Pantano, A. Cattoni, S. Collin, P. Biagioni, N.M. Pugno, and **G. Cerullo**, "Ultrasensitive Characterization of Mechanical Oscillations and Plasmon Energy Shift in Gold Nanorods", *ACS Nano* **10**, 2251-2258 (2016). DOI: 10.1021/acsnano.5b06904.
- 336.D. Bossini, S. Dal Conte, Y. Hashimoto, A. Secchi, R. V. Pisarev, Th. Rasing, **G. Cerullo** and A. V. Kimel "Macrospin dynamics in antiferromagnets triggered by sub-20 femtosecond injection of nanomagnons", *Nature Commun.* **7**, 10645 (2016). doi:10.1038/ncomms10645
- 337.G. Soavi, S. Dal Conte, C. Manzoni, D. Viola, A. Narita, Y. Hu, X. Feng, U. Hohenester, E. Molinari, D. Prezzi, K. Müllen and **G. Cerullo**, "Exciton–exciton annihilation and biexciton stimulated emission in graphene nanoribbons", *Nature Commun.* **7**, 11010 (2016). doi:10.1038/ncomms1101010645

- 338.E.A.A. Pogna, M. Marsili, D. De Fazio, S. Dal Conte, C. Manzoni, D. Sangalli, D. Yoon, A. Lombardo, A.C. Ferrari, A. Marini, **G. Cerullo**, and D. Prezzi, "Photo-Induced Bandgap Renormalization Governs the Ultrafast Response of Single-Layer MoS₂", *ACS Nano* **10**, 1182-1188 (2016) DOI: 10.1021/acsnano.5b06488.
- 339.V. Vega-Mayoral, D. Vella, T. Borzda, M. Prijatelj, I. Tempa, E.A.A. Pogna, S. Dal Conte, P. Topolovsek, N. Vujicic, **G. Cerullo**, D. Mihailovic and Ch. Gadermaier, "Exciton and charge carrier dynamics in few-layer WS₂", *Nanoscale* **8**, 5428-5434 (2016) DOI: 10.1039/C5NR08384B.
- 340.M.M. Nava, N. Di Maggio, T. Zandrini, **G. Cerullo**, R. Osellame, I. Martin, and M.T. Raimondi, "Synthetic niche substrates engineered via two-photon laser polymerization for the expansion of human mesenchymal stromal cells", *J. Tissue Eng. Regen. Med.* (2016). doi: 10.1002/term.2187.
- 341.A. Oriana, J. Réhault, F. Preda, D. Polli, and **G. Cerullo**, "Scanning Fourier transform spectrometer in the visible range based on birefringent wedges," *J. Opt. Soc. Am. A* **33**, 1415-1420 (2016). DOI: 10.1364/JOSAA.33.001415.
- 342.F. Preda, V. Kumar, F. Crisafi, D. Gisell Figueroa del Valle, **G. Cerullo**, and D. Polli, "Broadband pump-probe spectroscopy at 20-MHz modulation frequency," *Opt. Lett.* **41**, 2970-2973 (2016). DOI: 10.1364/OL.41.002970.
- 343.D. Sangalli, S. Dal Conte, C. Manzoni, **G. Cerullo**, and A. Marini, "Nonequilibrium optical properties in semiconductors from first principles: A combined theoretical and experimental study of bulk silicon", *Phys. Rev. B* **93**, 195205 (2016). DOI: 10.1103/PhysRevB.93.195205.
- 344.E.A.A. Pogna, S. Dal Conte, G. Soavi, V.G. Kravets, Y.-J. Kim, S. Longhi, A.N. Grigorenko, **G. Cerullo**, and G. Della Valle, "Ultrafast Spectroscopy of Graphene-Protected Thin Copper Films", *ACS Photonics* **3**, 1508-1516 (2016). DOI: 10.1021/acsp Photonics.6b00100
- 345.V.G. Sala, S. Dal Conte, T.A. Miller, D. Viola, E. Luppi, V. Vénard, G. Cerullo, and S. Wall, "Resonant optical control of the structural distortions that drive ultrafast demagnetization in Cr₂O₃", *Phys. Rev. B* **94**, 014430 (2016). DOI: 10.1103/PhysRevB.94.014430.
- 346.G. Soavi, F. Scotognella, G. Lanzani, and **G. Cerullo**, "Ultrafast Photophysics of Single-Walled Carbon Nanotubes", *Adv. Opt. Mat.* **4**, 1670–1688 (2016). doi:10.1002/adom.201600361
- 347.C. Manzoni and **G. Cerullo**, "Design criteria for ultrafast optical parametric amplifiers", *J. Opt.* **18**, 103501 (2016). DOI: 10.1088/2040-8978/18/10/103501.
- 348.D.T. Reid, C.M. Heyl, R.R. Thomson, R. Trebino, G. Steinmeyer, H.H. Fielding, R. Holzwarth, Z. Zhang, P. Del'Haye, T. Südmeyer, G. Mourou, T. Tajima, D. Faccio, F.J.M. Harren, and **G. Cerullo**, "Roadmap on ultrafast optics", *J. Opt.* **18**, 093006 (2016). DOI: 10.1088/2040-8978/18/9/093006.
- 349.M. Bressan, L. Dall'Osto, I. Bargigia, M.J.P. Alcocer, D. Viola, G. Cerullo, C. D'Andrea, R. Bassi and M. Ballottari, "LHCII can substitute for LHCI as an antenna for photosystem I but

with reduced light-harvesting capacity”, *Nature Plants* **2**, 16131 (2016). doi: 10.1038/nplants.2016.131.

350. M.M. Nava, A. Piuma, M. Figliuzzi, I. Cattaneo, B. Bonandrini, T. Zandrini, **G. Cerullo**, R. Osellame, A. Remuzzi and M.T. Raimondi “Two-photon polymerized “nichoid” substrates maintain function of pluripotent stem cells when expanded under feeder-free conditions”, *Stem Cell Research & Therapy* **7**, 132 (2016). DOI 10.1186/s13287-016-0387-z
351. F. Saltarelli, V. Kumar, D. Viola, F. Crisafi, F. Preda, **G. Cerullo**, and D. Polli, "Broadband stimulated Raman scattering spectroscopy by a photonic time stretcher," *Opt. Express* **24**, 21264-21275 (2016). DOI: 10.1364/OE.24.021264.
352. I. Kriegel, C. Urso, D. Viola, L. De Trizio, F. Scotognella, **G. Cerullo**, and L. Manna, “Ultrafast Photodoping and Plasmon Dynamics in Fluorine–Indium Codoped Cadmium Oxide Nanocrystals for All-Optical Signal Manipulation at Optical Communication Wavelengths”, *J. Phys. Chem. Lett.* **7**, 3873-3881 (2016). DOI: 10.1021/acs.jpcclett.6b01904.
353. C. Rinaldi, S. Bertoli, M. Asa, L. Baldrati, C. Manzoni, M. Marangoni, **G. Cerullo**, M. Bianchi, R. Sordan, and R. Bertacco, “Determination of the spin diffusion length in germanium by spin optical orientation and electrical spin injection”, *J. Phys. D: Appl. Phys.* **49**, 425104 (2016). DOI: 10.1088/0022-3727/49/42/425104.
354. T. Steinle, V. Kumar, M. Floess, A. Steinmann, M. Marangoni, C. Koch, C. Wege, **G. Cerullo**, and H. Giessen, “Synchronization-free all-solid-state laser system for stimulated Raman scattering microscopy”, *Light: Science & Applications* **5**, e16149 (2016). DOI: 10.1038/lsa.2016.149
355. C. Ferrante, E. Pontecorvo, **G. Cerullo**, M. H. Vos, and T. Scopigno, “Direct observation of subpicosecond vibrational dynamics in photoexcited myoglobin”, *Nature Chemistry* **8**, 1137–1143 (2016). doi:10.1038/nchem.2569.
356. R. Borrego-Varillas, A. Oriana, L. Ganzer, A. Trifonov, I. Buchvarov, C. Manzoni, and **G. Cerullo**, "Two-dimensional electronic spectroscopy in the ultraviolet by a birefringent delay line," *Opt. Express* **24**, 28491-28499 (2016). DOI: 10.1364/OE.24.028491.
357. A. De Sio, F. Troiani, M. Maiuri, J. Réhault, E. Sommer, J. Lim, S.F. Huelga, M.B. Plenio, C.A. Rozzi, **G. Cerullo**, E. Molinari, and C. Lienau, “Tracking the coherent generation of polaron pairs in conjugated polymers”, *Nat Commun.* **7**, 13742 (2016). DOI: 10.1038/ncomms13742.
358. L. Lüer, S. Kiran Rajendran, T. Stoll, L. Ganzer, J. Rehault, D.M. Coles, D. Lidzey, T. Virgili, and **G. Cerullo**, “Lévy Defects in Matrix-Immobilized J Aggregates: Tracing Intra-and Intersegmental Exciton Relaxation”, *J. Phys. Chem. Lett.* **8**, 547-552 (2017). DOI: 10.1021/acs.jpcclett.6b02704.
359. D. Ricci, M.M. Nava, T. Zandrini, **G. Cerullo**, M.T. Raimondi and R. Osellame, “Scaling-Up Techniques for the Nanofabrication of Cell Culture Substrates via Two-Photon Polymerization for Industrial-Scale Expansion of Stem Cells”, *Materials* **10**, 66 (2017). DOI: 10.3390/ma10010066.

- 360.G. Grancini, D. Viola, M. Gandini, D. Altamura, E.A.A. Pogna, V. D’Innocenzo, I. Bargigia, C. Giannini, **G. Cerullo**, and A. Petrozza, “Lattice Distortions Drive Electron–Hole Correlation within Micrometer-Size Lead-Iodide Perovskite Crystals”, *ACS Energy Letters* **2**, 265-269 (2017). DOI: 10.1021/acsenergylett.6b00607.
- 361.F. Preda, A. Oriana, J. Réhault, L. Lombardi, A.C. Ferrari, **G. Cerullo**, and D. Polli, "Linear and Nonlinear Spectroscopy by a Common-Path Birefringent Interferometer," *IEEE J.S.T.Q.E.* **23**, 1-9 (2017). DOI: 10.1109/JSTQE.2016.2630840.
- 362.A. Cartella, T. F. Nova, A. Oriana, **G. Cerullo**, M. Först, C. Manzoni, and A. Cavalleri, "Narrowband carrier-envelope phase stable mid-infrared pulses at wavelengths beyond 10 μm by chirped-pulse difference frequency generation," *Opt. Lett.* **42**, 663-666 (2017). DOI: 10.1364/OL.42.000663.
- 363.J.W. Jarrett, C. Yi, T. Stoll, J. Rehault, A. Oriana, F. Branchi, **G. Cerullo**, and K.L. Knappenberger, “Dissecting charge relaxation pathways in CdSe/CdS nanocrystals using femtosecond two-dimensional electronic spectroscopy”, *Nanoscale* **9**, 4572 (2017). DOI: 10.1039/C7NR00654C.
- 364.J. Réhault, R. Borrego-Varillas, A. Oriana, C. Manzoni, C. P. Hauri, J. Helbing, and **G. Cerullo**, "Fourier transform spectroscopy in the vibrational fingerprint region with a birefringent interferometer," *Opt. Express* **25**, 4403-4413 (2017). DOI: 10.1364/OE.25.004403.
- 365.F. Bottegoni, C. Zucchetti, S. Dal Conte, J. Frigerio, E. Carpena, C. Vergnaud, M. Jamet, G. Isella, F. Ciccacci, **G. Cerullo**, and M. Finazzi, “Spin-Hall Voltage over a Large Length Scale in Bulk Germanium”, *Phys. Rev. Lett.* **118**, 167402 (2017).
- 366.T. Stoll, F. Branchi, J. Réhault, F. Scotognella, F. Tassone, I. Kriegel, and **G. Cerullo**, “Two-Dimensional Electronic Spectroscopy Unravels sub-100 fs Electron and Hole Relaxation Dynamics in Cd-Chalcogenide Nanostructures”, *J. Phys. Chem. Lett.* **8**, 2285-2290 (2017).
- 367.I. Grigioni, K.G. Stamplecoskie, D.H. Jara, M. V. Dozzi, A. Oriana, **G. Cerullo**, P.V. Kamat, and E. Selli, “Wavelength-Dependent Ultrafast Charge Carrier Separation in the WO₃/BiVO₄ Coupled System”, *ACS Energy Letters* **2**, 1362-1367 (2017).
- 368.A. Perri, F. Preda, C. D’Andrea, E. Thyryhaug, G. Cerullo, D. Polli, and J. Hauer, "Excitation-emission Fourier-transform spectroscopy based on a birefringent interferometer," *Opt. Express* **25**, A483-A490 (2017)
- 369.D Vella, D Ovchinnikov, D Viola, D Dumcenco, YC Kung, EAA Pogna, S. Dal Conte, V. Vega-Mayoral, T. Borzda, M. Prijatelj, D. Mihailovic, A. Kis, **G. Cerullo**, Ch. Gadermaier, “Field-induced charge separation dynamics in monolayer MoS₂”, *2D Mater.* **4**, 035017 (2017).
- 370.S. Peli, S. Dal Conte, R. Comin, N. Nembrini, A. Ronchi, P. Abrami, F. Banfi, G. Ferrini, D. Brida, S. Lupi, M. Fabrizio, A. Damascelli, M. Capone, **G. Cerullo**, C. Giannetti, “Motttness at finite doping and charge instabilities in cuprates”, *Nature Physics* **13**, 806 (2017).
- 371.S. Berardi, V. Cristino, M. Canton, R. Boaretto, R. Argazzi, E. Benazzi, L. Ganzer, R. Borrego Varillas, G. Cerullo, Z. Syrgiannis, F. Rigodanza, M. Prato, C. A. Bignozzi, and S. Caramori,

- “Perylene Diimide Aggregates on Sb-Doped SnO₂: Charge Transfer Dynamics Relevant to Solar Fuel Generation”, *J. Phys. Chem. C* **121**, 17737-17745 (2017).
372. G. Di Carlo, S. Caramori, L. Casarin, A. Orbelli Biroli, F. Tessore, R. Argazzi, A. Oriana, **G. Cerullo**, C. A. Bignozzi, and M. Pizzotti, “Charge Transfer Dynamics in β - and Meso-Substituted Dithienylethylene Porphyrins”, *J. Phys. Chem. C* **121**, 18385-18400 (2017).
373. J.M. Richter, F. Branchi, F. Valduga de Almeida Camargo, B. Zhao, R.H. Friend, **G. Cerullo**, F. Deschler, “Ultrafast carrier thermalization in lead iodide perovskite probed with two-dimensional electronic spectroscopy”, *Nat. Commun.* **8**, 376 (2017).
374. G. Della Valle, B. Hopkins, L. Ganzer, T. Stoll, M. Rahmani, S. Longhi, Y.S. Kivshar, C. De Angelis, D.N. Neshev, and G. Cerullo, “Nonlinear Anisotropic Dielectric Metasurfaces for Ultrafast Nanophotonics”, *ACS Photonics* **4**, 2129-2136 (2017).
375. W. Zhu, R. Wang, C. Zhang, G. Wang, Y. Liu, W. Zhao, X. Dai, X. Wang, **G. Cerullo**, S. Cundiff, and M. Xiao, "Broadband two-dimensional electronic spectroscopy in an actively phase stabilized pump-probe configuration," *Opt. Express* **25**, 21115-21126 (2017).
376. G. Grancini, D. Viola, Y. Lee, M. Saliba, S. Paek, K. Taek Cho, S. Orlandi, M. Cavazzini, F. Fungo, M.I. Hossain, A. Belaidi, N. Tabet, G. Pozzi, **G. Cerullo**, M.K. Nazeeruddin, “Femtosecond Charge-Injection Dynamics at Hybrid Perovskite Interfaces”, *ChemPhysChem* **18**, 2381-2389 (2017).
377. F. Crisafi, V. Kumar, T. Scopigno, M. Marangoni, G. Cerullo, D. Polli, “In-line balanced detection stimulated Raman scattering microscopy”, *Sci Rep.* **7**, 10745 (2017).
378. A. Pinnola, M. Ballottari, I. Bargigia, M. Alcocer, C. D’andrea, **G. Cerullo**, R. Bassi, “Functional modulation of LHCSR1 protein from *Physcomitrella patens* by zeaxanthin binding and low pH”, *Sci Rep.* **7**, 11158 (2017).
379. E. Molotokaite, W. Remelli, A.P. Casazza, G. Zucchelli, D. Polli, G. Cerullo, and S. Santabarbara, “Trapping Dynamics in Photosystem I-Light Harvesting Complex I of Higher Plants Is Governed by the Competition Between Excited State Diffusion from Low Energy States and Photochemical Charge Separation”, *J. Phys. Chem. B* **121**, 9816-9830 (2017).
380. V. Vega-Mayoral, T. Borzda, D. Vella, M. Prijatelj, E.A.A. Pogna, C. Backes, J.N. Coleman, G. Cerullo, D. Mihailovic and Ch. Gadermaier, “Charge trapping and coalescence dynamics in few layer MoS₂”, *2D Mater.* **5**, 015011 (2017).
381. N. Coluccelli, D. Viola, V. Kumar, A. Perri, M. Marangoni, **G. Cerullo**, and Dario Polli, "Tunable 30 fs light pulses at 1 W power level from a Yb-pumped optical parametric oscillator," *Opt. Lett.* **42**, 4545-4548 (2017).
382. F. Mascia, L. Girolomoni, M.J.P. Alcocer, I. Bargigia, F. Perozeni, S. Cazzaniga, G. Cerullo, C. D’Andrea, M. Ballottari, “Functional analysis of photosynthetic pigment binding complexes in the green alga *Haematococcus pluvialis* reveals distribution of astaxanthin in Photosystems”, *Sci. Rep.* **7**, 16319 (2017).
383. K.-J. Tielrooij, N.C. H. Hesp, A. Principi, M.B. Lundeberg, E.A.A. Pogna, L. Banszerus, Z. Mics, M. Massicotte, P. Schmidt, D. Davydovskaya, D.G. Purdie, I. Goykhman, G. Soavi, A.

- Lombardo, K. Watanabe, T. Taniguchi, M. Bonn, D. Turchinovich, Ch. Stampfer, A.C. Ferrari, **G. Cerullo**, M. Polini and F.H.L. Koppens, “Out-of-plane heat transfer in van der Waals stacks through electron–hyperbolic phonon coupling”, *Nature Nanotech.***13**, 41–46 (2018).
- 384.F. Crisafi, V. Kumar, A. Perri, M. Marangoni, **G. Cerullo**, D. Polli, “Multimodal nonlinear microscope based on a compact fiber-format laser source”, *Spectrochim. Acta A* **188**, 135-140 (2018).
- 385.Z. Nie, C. Trovatiello, E.A.A. Pogna, S. Dal Conte, P.B. Miranda, E. Kelleher, C. Zhu, I. C. E. Turcu, Y. Xu, K. Liu, **G. Cerullo** and F. Wang, “Broadband nonlinear optical response of monolayer MoSe₂ under ultrafast excitation”, *Appl. Phys. Lett.* **112**, 031108 (2018).
- 386.C. Ferrante, A. Virga, L. Benfatto, M. Martinati, D. De Fazio, U. Sassi, C. Fasolato, A.K. Ott, P. Postorino, D. Yoon, G. Cerullo, F. Mauri, A.C. Ferrari and T. Scopigno, “Raman spectroscopy of graphene under ultrafast laser excitation”, *Nat. Commun.* **9**, 308 (2018).
- 387.A. Perri, J.H. Gaida, A. Farina, F. Preda, D. Viola, M. Ballottari, J. Hauer, S. De Silvestri, C. D’Andrea, G. Cerullo, and D. Polli, "Time- and frequency-resolved fluorescence with a single TCSPC detector via a Fourier-transform approach," *Opt. Express* **26**, 2270-2279 (2018).
- 388.G.M. Paternò, C. Iseppon, A. D’Altri, C. Fasanotti, G. Merati, M. Randi, A. Desii, E.A.A. Pogna, D. Viola, G. Cerullo, F. Scotognella and I. Kriegel, “Solution processable and optically switchable 1D photonic structures”, *Sci. Rep.* **8**, 3517 (2018).
- 389.E. Thyraug, C.N. Lincoln, F. Branchi, **G. Cerullo**, V. Perlík, F. Šanda, H. Lokstein and J. Hauer, “Carotenoid-to-bacteriochlorophyll energy transfer through vibronic coupling in LH2 from *Phaeosprillum molischianum*”, *Photosynth. Res.* **135**, 45-54 (2018).
- 390.V. Balevičius, C.N. Lincoln, D. Viola, **G. Cerullo**, J. Hauer, D. Abramavicius, “Effects of tunable excitation in carotenoids explained by the vibrational energy relaxation approach”, *Photosynth. Res.* **135**, 55 (2018).
- 391.A. Nenov, R. Borrego-Varillas, A. Oriana, L. Ganzer, F. Segatta, I. Conti, J. Segarra-Martí, J. Omachi, M. Dapor, S. Taioli, C. Manzoni, S. Mukamel, G. Cerullo, and M. Garavelli, “UV-Light-Induced Vibrational Coherences: The Key to Understand Kasha Rule Violation in trans-Azobenzene”, *J. Phys. Chem. Lett.* **9**, 1534-1541 (2018).
- 392.M. Zani, V. Sala, G. Irde, S. M. Pietralunga, C. Manzoni, **G. Cerullo**, G. Lanzani, A. Tagliaferri, “Charge dynamics in aluminum oxide thin film studied by ultrafast scanning electron microscopy”, *Ultramicroscopy* **187**, 93-97 (2018).
- 393.F. Preda, A. Perri, J. Réhault, B. Dutta, J. Helbing, G. Cerullo, and D. Polli, "Time-domain measurement of optical activity by an ultrastable common-path interferometer," *Opt. Lett.* **43**, 1882-1885 (2018).
- 394.H. Hedayat, D. Bugini, H. Yi, C. Chen, X. Zhou, **G. Cerullo**, C. Dallera and E. Carpena, “Surface State Dynamics of Topological Insulators Investigated by Femtosecond Time- and Angle-Resolved Photoemission Spectroscopy”, *Appl. Sci.* **8**, 694 (2018).

395. G. Abbandonato, D. Polli, D. Viola, **G. Cerullo**, B. Storti, F. Cardarelli, F. Salomone, R. Nifosì, G. Signore and R. Bizzarri, “Simultaneous Detection of Local Polarizability and Viscosity by a Single Fluorescent Probe in Cells”, *Biophys. J.* **114**, 2212–2220 (2018).
396. G. Batignani, G. Fumero, A. Ram Srimath Kandada, **G. Cerullo**, M. Gandini, C. Ferrante, A. Petrozza and T. Scopigno, “Probing femtosecond lattice displacement upon photo-carrier generation in lead halide perovskite”, *Nat. Commun.* **9**, 1971 (2018).
397. G. Soavi, G. Wang, H. Rostami, D.G. Purdie, D. De Fazio, T. Ma, B. Luo, J. Wang, A.K. Ott, D. Yoon, S.A. Bourelle, J.E. Muench, I. Goykhman, S. Dal Conte, M. Celebrano, A. Tomadin, M. Polini, G. Cerullo and A.C. Ferrari, “Broadband, electrically tunable third-harmonic generation in graphene”, *Nature Nanotech.* **13**, 583–588 (2018).
398. C. Ferrante, G. Batignani, G. Fumero, E. Pontecorvo, A. Virga, L. C. Montemiglio, G. Cerullo, M. H. Vos, and T. Scopigno, “Resonant broadband stimulated Raman scattering in myoglobin”, *J. Raman Spectrosc.* **49**, 913–920 (2018).
399. R. Borrego-Varillas, L. Ganzer, G. Cerullo, C. Manzoni, “Ultraviolet Transient Absorption Spectrometer with Sub-20-fs Time Resolution” *Appl. Sci.* **8**, 989 (2018).
400. Y. Ben-Shahar, J.P. Philbin, F. Scotognella, L. Ganzer, **G. Cerullo**, E. Rabani, and U. Banin, “Charge Carrier Dynamics in Photocatalytic Hybrid Semiconductor–Metal Nanorods: Crossover from Auger Recombination to Charge Transfer”, *Nano Lett.* **18**, 5211–5216 (2018).
401. S. Abbruzzetti, A. Allegri, A. Bidon-Chanal, H. Ogata, G. Soavi, G. Cerullo, S. Bruno, C. Montali, F. Javier Luque and C. Viappiani, “Electrostatic Tuning of the Ligand Binding Mechanism by Glu27 in Nitrophorin 7”, *Sci. Rep.* **8**, 10855 (2018).
402. A. Nenov, I. Conti, R. Borrego-Varillas, **G. Cerullo**, M. Garavelli, “Linear absorption spectra of solvated thiouracils resolved at the hybrid RASPT2/MM level”, *Chem. Phys.*, in press (2018).
403. Y. Huang, F. Xu, L. Ganzer, F.V. A. Camargo, T. Nagahara, J. Teyssandier, H. Van Gorp, K. Basse, L. Arnt Straasø, V. Nagyte, C. Casiraghi, M. Ryan Hansen, S. De Feyter, D. Yan, K. Müllen, X. Feng, **G. Cerullo**, and Y. Mai, “Intrinsic Properties of Single Graphene Nanoribbons in Solution: Synthetic and Spectroscopic Studies”, *J. Am. Chem. Soc.* **140**, 10416–10420 (2018).
404. F. Segatta, I. Gdor, J. Réhault, S. Taioli, N. Friedman, M. Sheves, I. Rivalta, S. Ruhman, G. Cerullo, M. Garavelli, “Ultrafast Carotenoid to Retinal Energy Transfer in Xanthorhodopsin Revealed by the Combination of Transient Absorption and Two-Dimensional Electronic Spectroscopy”, *Chem. Eur. J.* **24**, 12084 (2018).
405. S. Gharibzadeh, F. Valduga de Almeida Camargo, C. Roldán-Carmona, G. Clément, G. Jorge Pascual, R. Tena-Zaera, **G. Cerullo**, G. Grancini, M.K. Nazeeruddin, “Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI₃:C70-Doped Planar and Mesoporous Solar Cells”, *Adv. Mater.* 1801496, 2018.
406. V. Kumar, A. De la Cadena, A. Perri, F. Preda, N. Coluccelli, G. Cerullo, and D. Polli, “Invited Article: Complex vibrational susceptibility by interferometric Fourier transform

- stimulated Raman scattering”, *APL Photonics* **3**, 092403 (2018). <https://doi.org/10.1063/1.5034114>.
407. M. G. Silva, D. C. Teles-Ferreira, L. Siman, C. R. Chaves, Luiz O. Ladeira, S. Longhi, **G. Cerullo**, C. Manzoni, A. M. de Paula, and G. Della Valle, “Universal saturation behavior in the transient optical response of plasmonic structures”, *Phys. Rev. B* **98**, 115407 (2018).
 408. Paolo Maioli, Tatjana Stoll, Huziel E. Saucedo, Israel Valencia, Aude Demessence, Franck Bertorelle, Aurélien Crut, Fabrice Vallée, Ignacio L. Garzón, **Giulio Cerullo**, and Natalia Del Fatti, “Mechanical Vibrations of Atomically Defined Metal Clusters: From Nano- to Molecular-Size Oscillators”, *Nano Lett.* **18**, 6842-6849 (2018). DOI: 10.1021/acs.nanolett.8b02717
 409. Zilong Wang, Alejandro Molina-Sánchez, Patrick Altmann, Davide Sangalli, Domenico De Fazio, Giancarlo Soavi, Ugo Sassi, Federico Bottegoni, Franco Ciccacci, Marco Finazzi, Ludger Wirtz, Andrea C. Ferrari, Andrea Marini, **Giulio Cerullo**, and Stefano Dal Conte, “Intravalley Spin–Flip Relaxation Dynamics in Single-Layer WS₂”, *Nano Lett.* **18**, 6882-6891 (2018). DOI: 10.1021/acs.nanolett.8b02774
 410. Rocío Borrego-Varillas, Danielle C. Teles-Ferreira, Artur Nenov, Irene Conti, Lucia Ganzer, Cristian Manzoni, Marco Garavelli, Ana Maria de Paula, and Giulio Cerullo, “Observation of the Sub-100 Femtosecond Population of a Dark State in a Thiobase Mediating Intersystem Crossing”, *J. Am. Chem. Soc.* **140**, 16087-16093 (2018). DOI: 10.1021/jacs.8b07057
 411. Kushagra Gahlot, Pradeep K.R., Andrea Camellini, Gianluca Sirigu, **Giulio Cerullo**, Margherita Zavelani-Rossi, Anjali Singh, Umesh V. Waghmare, and Ranjani Viswanatha, “Transient Species Mediating Energy Transfer to Spin-Forbidden Mn d States in II–VI Semiconductor Quantum Dots”, *ACS Energy Lett.* **4** (3), 729-735 (2019). DOI: 10.1021/acsenenergylett.9b00064
 412. Xuelin Yao, Xiao-Ye Wang, Christopher Simpson, Giuseppe M. Paternò, Michele Guizzardi, Manfred Wagner, **Giulio Cerullo**, Francesco Scotognella, Mark D. Watson, Akimitsu Narita, and Klaus Müllen, “Regioselective Hydrogenation of a 60-Carbon Nanographene Molecule toward a Circumbiphenyl Core”, *J. Am. Chem. Soc.* **141** (10), 4230-4234 (2019). DOI: 10.1021/jacs.9b00384.
 413. Erling Thyryhaug, Stefan Krause, Antonio Perri, **Giulio Cerullo**, Dario Polli, Tom Vösch, Jürgen Hauer, “Single-molecule excitation–emission spectroscopy”, *Proc. Natl. Acad. Sci. USA*, **116** (10) 4064-4069 (2019). DOI: 10.1073/pnas.1808290116
 414. Rocío Borrego-Varillas, Giulio Cerullo, and Dimitra Markovitsi, “Exciton Trapping Dynamics in DNA Multimers”, *J. Phys. Chem. Lett.* **10** (7), 1639-1643 (2019). DOI: 10.1021/acs.jpcclett.9b00450
 415. A.-G. Paschke, G. Zarantonello, H. Hahn, T. Lang, C. Manzoni, M. Marangoni, **G. Cerullo**, U. Morgner, and C. Ospelkaus, “Versatile Control of ⁹Be⁺ Ions Using a Spectrally Tailored UV Frequency Comb”, *Phys. Rev. Lett.* **122**, 123606 (2019). DOI: 10.1103/PhysRevLett.122.123606.

416. Andrea Mazzanti, Zhijie Yang, Mychel G. Silva, Nailiang Yang, Giancarlo Rizza, Pierre-Eugène Coulon, Cristian Manzoni, Ana Maria de Paula, **Giulio Cerullo**, Giuseppe Della Valle, Marie-Paule Pileni, “Light–heat conversion dynamics in highly diversified water-dispersed hydrophobic nanocrystal assemblies”, *Proc. Natl. Acad. of Sci. USA* **116** (17). 8161-8166 (2019). DOI: 10.1073/pnas.1817850116
417. Tobias Steinle, Moritz Floess, Andy Steinmann, Vikas Kumar, **Giulio Cerullo**, and Harald Giessen, “Stimulated Raman Scattering Microscopy with an All-Optical Modulator”, *Phys. Rev. Applied* **11**, 044081 (2019). DOI: 10.1103/PhysRevApplied.11.044081.
418. Alberto Portone, Lucia Ganzer, Federico Branchi, Rodrigo Ramos, Marília J. Caldas, Dario Pisignano, Elisa Molinari, **Giulio Cerullo**, Luana Persano, Deborah Prezzi, Tersilla Virgili, “Tailoring optical properties and stimulated emission in nanostructured polythiophene”, *Sci Rep* **9**, 7370 (2019). doi:10.1038/s41598-019-43719-0
419. Gabriel de la Cruz Valbuena, Franco V. A. Camargo, Rocio Borrego-Varillas, Federico Perozeni, Cosimo D’Andrea, Matteo Ballottari, and **Giulio Cerullo**, “Molecular Mechanisms of Nonphotochemical Quenching in the LHCSR3 Protein of *Chlamydomonas reinhardtii*”, *J. Phys. Chem. Lett.* **10** (10), 2500-2505 (2019). DOI: 10.1021/acs.jpcclett.9b01184
420. A. Perri, B. E. Nogueira de Faria, D. C. Teles Ferreira, D. Comelli, G. Valentini, F. Preda, D. Polli, A. M. de Paula, **G. Cerullo**, and C. Manzoni, "Hyperspectral imaging with a TWINS birefringent interferometer," *Opt. Express* **27**, 15956-15967 (2019). DOI: 10.1364/OE.27.015956.
421. Carlo M. Valensise, Vikas Kumar, Alejandro De la Cadena, Sandro De Silvestri, **Giulio Cerullo**, and Dario Polli, "Vibrational phase imaging by stimulated Raman scattering via polarization-division interferometry," *Opt. Express* **27**, 19407-19417 (2019). DOI: 10.1364/OE.27.019407.
422. Yunbin Hu, Giuseppe M. Paternò, Xiao-Ye Wang, Xin-Chang Wang, Michele Guizzardi, Qiang Chen, Dieter Schollmeyer, Xiao-Yu Cao, **Giulio Cerullo**, Francesco Scotognella, Klaus Müllen, and Akimitsu Narita, “ π -Extended Pyrene-Fused Double [7]Carbohelicene as a Chiral Polycyclic Aromatic Hydrocarbon”, *J. Am. Chem. Soc.* **141** (32), 12797-12803 (2019). DOI: 10.1021/jacs.9b05610
423. D. Bossini, S. Dal Conte, G. Cerullo, O. Gomonay, R. V. Pisarev, M. Borovsak, D. Mihailovic, J. Sinova, J. H. Mentink, Th. Rasing, and A. V. Kimel, “Laser-driven quantum magnonics and terahertz dynamics of the order parameter in antiferromagnets”, *Phys. Rev. B* **100**, 024428 (2019). DOI: 10.1103/PhysRevB.100.024428.
424. Stefano Dal Conte, Chiara Trovatello, Christoph Gadermaier, **Giulio Cerullo**, “Ultrafast Photophysics of 2D Semiconductors and Related Heterostructures”, *Trends in Chemistry* **2**, 28-42 (2020). DOI: 10.1016/j.trechm.2019.07.007.
425. Batignani, G., Pontecorvo, E., Bossini, D., Ferrante, C., Fumero, G., **Cerullo, G.**, Mukamel, S., Scopigno, T., “Modeling the Ultrafast Response of Two-Magnon Raman Excitations in

Antiferromagnets on the Femtosecond Timescale” *ANNALEN DER PHYSIK* **531**, 1900439 (2019). DOI: 10.1002/andp.201900439.

426. Ivan Grigioni, Lucia Ganzer, Franco V. A. Camargo, Benedetto Bozzini, **Giulio Cerullo**, and Elena Selli, "In Operando Photoelectrochemical Femtosecond Transient Absorption Spectroscopy of WO₃/BiVO₄ Heterojunctions, *ACS Energy Lett.* **4** (9), 2213-2219 (2019). DOI: 10.1021/acsenenergylett.9b01150
427. A. Virga, C. Ferrante, G. Batignani, D. De Fazio, A. D. G. Nunn, A. C. Ferrari, **G. Cerullo**, T. Scopigno "Coherent anti-Stokes Raman spectroscopy of single and multi-layer graphene", *Nat Commun* **10**, 3658 (2019). doi:10.1038/s41467-019-11165-1
428. Tommaso Zandrini, Oumin Shan, Valentina Parodi, **Giulio Cerullo**, Manuela T. Raimondi, Roberto Osellame, "Multi-foci laser microfabrication of 3D polymeric scaffolds for stem cell expansion in regenerative medicine", *Sci Rep* **9**, 11761 (2019). doi:10.1038/s41598-019-48080-w
429. H. Hedayat, C. J. Sayers, D. Bugini, C. Dallera, D. Wolverson, T. Batten, S. Karbassi, S. Friedemann, **G. Cerullo**, J. van Wezel, S. R. Clark, E. Carpene, and E. Da Como, "Excitonic and lattice contributions to the charge density wave in 1T-TiSe₂ revealed by a phonon bottleneck" *Phys. Rev. Research* **1**, 023029 (2019). DOI: 10.1103/PhysRevResearch.1.023029.
430. Bojana Višić, Lena Yadgarov, Eva A. A. Pogna, Stefano Dal Conte, Victor Vega-Mayoral, Daniele Vella, Reshef Tenne, **Giulio Cerullo**, Christoph Gadermaier, "Ultrafast nonequilibrium dynamics of strongly coupled resonances in the intrinsic cavity of WS₂ nanotubes", *Phys. Rev. Research* **1**, 033046 (2019). DOI: 10.1103/PhysRevResearch.1.033046
431. Giancarlo Soavi, Gang Wang, Habib Rostami, Andrea Tomadin, Osman Balci, I. Paradisanos, Eva A. A. Pogna, **Giulio Cerullo**, Eleferios Lidorikis, Marco Polini, and Andrea C. Ferrari, "Hot Electrons Modulation of Third-Harmonic Generation in Graphene", *ACS Photonics* **6**, 2841-2849 (2019). DOI: 10.1021/acsp Photonics.9b00928
432. R. Borrego-Varillas, A. Nenov, L. Ganzer, A. Oriana, C. Manzoni, A. Tolomelli, I. Rivalta, S. Mukamel, M. Garavelli and **G. Cerullo**, "Two-dimensional UV spectroscopy: a new insight into the structure and dynamics of biomolecules", *Chem. Sci.* **10**, 9907-9921 (2019). DOI: 10.1039/C9SC03871J.
433. Margherita Maiuri, Marco Garavelli, and **Giulio Cerullo**, "Ultrafast spectroscopy: state of the art and open challenges", *J. Am. Chem. Soc.* **142**, 3-15 (2020). DOI: 10.1021/jacs.9b10533.
434. A. Candeo, B. E. Nogueira de Faria, M. Erreni, G. Valentini, A. Bassi, A. M. de Paula, **G. Cerullo** and C. Manzoni "A hyperspectral microscope based on an ultrastable common-path interferometer", *APL Photonics* **4**, 120802 (2019). DOI: 10.1063/1.5129860.
435. Pradeep K. R., Debdipto Acharya, Priyanka Jain, Kushagra Gahlot, Anur Yadav, Andrea Camellini, Margherita Zavelani-Rossi, **Giulio Cerullo**, Chandrabhas Narayana, Shobhana Narasimhan, and Ranjani Viswanatha, "Harvesting Delayed Fluorescence in Perovskite Nanocrystals Using Spin-Forbidden Mn d States", *ACS Energy Letters* **5**, 353-359 (2020). DOI: 10.1021/acsenenergylett.9b02399

- 436.D. C. Teles-Ferreira, I. Conti, R. Borrego-Varillas, A. Nenov, I.H.M. Van Stokkum, L. Ganzer, Dr. C. Manzoni, A.M. de Paula, **G. Cerullo** and M. Garavelli, “A Unified Experimental/Theoretical Description of the Ultrafast Photophysics of Single and Double Thionated Uracils”, *Chem. Eur. J.* **26**, 336 (2020). DOI: 10.1002/chem.201904541.
- 437.F.V.A. Camargo, T. Nagahara, S. Feldmann, J.M. Richter, R.H. Friend, **G. Cerullo** and F. Deschler, “Dark Subgap States in Metal-Halide Perovskites Revealed by Coherent Multidimensional Spectroscopy”, *J. Am. Chem. Soc.* **142**, 777-782 (2020). DOI: 10.1021/jacs.9b07169.
- 438.T. Geiger, S. Schundelmeier, T. Hummel, M. Ströbele, W. Leis, M. Seitz, C. Zeiser, L. Moretti, M. Maiuri, **G. Cerullo**, K. Broch, J. Vahland, K. Leo, C. Maichle-Mössmer, B. Speiser, H. F. Bettinger, “Modulating the Electronic and Solid-State Structure of Organic Semiconductors by Site-Specific Substitution: The Case of Tetrafluoropentacenes”, *Chem. Eur. J.* **26**, 3420 (2020). DOI: 10.1002/chem.201905843.
- 439.M. Russo, V. Petropoulos, E. Molotokaite, **G. Cerullo**, A.P. Casazza, M. Maiuri and S. Santabarbara, “Ultrafast excited-state dynamics in land plants Photosystem I core and whole supercomplex under oxidised electron donor conditions”, *Photosynth Res* (2020). <https://doi.org/10.1007/s11120-020-00717-y>
- 440.A. Wituschek, L. Bruder, E. Allaria, U. Bangert, M. Binz, R. Borghes, C. Callegari, **G. Cerullo**, P. Cinquegrana, L. Giannessi, M. Danailov, A. Demidovich, M. Di Fraia, M. Drabbels, R. Feifel, T. Laarmann, R. Michiels, N. Sadat Mirian, M. Mudrich, I. Nikolov, F. H. O’Shea, G. Penco, P. Piseri, O. Plekan, K.C. Prince, A. Przystawik, P. Rebernik Ribič, G. Sansone, P. Sigalotti, S. Spampinati, C. Spezzani, R. J. Squibb, S. Stranges, D. Uhl and F. Stienkemeier, “Tracking attosecond electronic coherences using phase-manipulated extreme ultraviolet pulses”, *Nat Commun* **11**, 883 (2020). DOI: 10.1038/s41467-020-14721-2
- 441.F Boschini, D Bugini, M Zonno, M Michiardi, R P Day , E Razzoli, B Zwartsenberg, M Schneider, E H da Silva Neto, S dal Conte, S K Kushwaha, R J Cava, S Zhdanovich, A K Mills, G Levy, E Carpena, C Dallera, C Giannetti, D J Jones, **G Cerullo** and A Damascelli, “Role of matrix elements in the time-resolved photoemission signal”, *New J. Phys.* **22**, 023031 (2020). DOI: 10.1088/1367-2630/ab6eb1.
- 442.Luca Moretti, Bryan Kudisch, Yuichi Terazono, Ana L. Moore, Thomas A. Moore, Devens Gust, Giulio Cerullo, Gregory D. Scholes, and Margherita Maiuri,” Ultrafast Dynamics of Nonrigid Zinc-Porphyrin Arrays Mimicking the Photosynthetic “Special Pair””, *The Journal of Physical Chemistry Letters* 2020 **11** (9), 3443-3450. DOI: 10.1021/acs.jpcllett.0c00856
- 443.Irene Conti, Giulio Cerullo, Artur Nenov, and Marco Garavelli, “Ultrafast Spectroscopy of Photoactive Molecular Systems from First Principles: Where We Stand Today and Where We Are Going”, *J. Am. Chem. Soc.* 2020 **142** (38), 16117-16139. DOI: 10.1021/jacs.0c04952
- 444.Chiera Trovatiello, Henrique P. C. Miranda, Alejandro Molina-Sánchez, Rocío Borrego-Varillas, Cristian Manzoni, Luca Moretti, Lucia Ganzer, Margherita Maiuri, Junjia Wang, Dumitru Dumcenco, Andras Kis, Ludger Wirtz, Andrea Marini, Giancarlo Soavi, Andrea C.

- Ferrari, Giulio Cerullo, Davide Sangalli, and Stefano Dal Conte, “Strongly Coupled Coherent Phonons in Single-Layer MoS₂”, *ACS Nano* 2020, **14** (5), 5700-5710. DOI: 10.1021/acsnano.0c00309
445. Sean A. Bourelle, Ravichandran Shivanna, Franco V. A. Camargo, Soumen Ghosh, Alexander J. Gillett, Satyaprasad P. Senanayak, Sascha Feldmann, Lissa Eyre, Arjun Ashoka, Tim W. J. van de Goor, Haralds Abolins, Thomas Winkler, **Giulio Cerullo**, Richard H. Friend, and Felix Deschler, “How Exciton Interactions Control Spin-Depolarization in Layered Hybrid Perovskites”, *Nano Lett.* 2020, **20** (8), 5678-5685. DOI: 10.1021/acs.nanolett.0c00867
446. Alberto Portone, Rocio Borrego-Varillas, Lucia Ganzer, Riccardo Di Corato, Antonio Qualtieri, Luana Persano, Andrea Camposeo, **Giulio Cerullo**, and Dario Pisignano, “Conformable Nanowire-in-Nanofiber Hybrids for Low-Threshold Optical Gain in the Ultraviolet”, *ACS Nano* 2020, **14** (7), 8093-8102. DOI: 10.1021/acsnano.0c00870
447. Giulio Maria Rossi, Roland E. Mainz, Yudong Yang, Fabian Scheiba, Miguel A. Silva-Toledo, Shih-Hsuan Chia, Phillip D. Keathley, Shaobo Fang, Oliver D. Mücke, Cristian Manzoni, **Giulio Cerullo**, Giovanni Cirimi & Franz X. Kärtner, “Sub-cycle millijoule-level parametric waveform synthesizer for attosecond science”, *Nature Photonics* **14**, 629–635 (2020).
448. Andrea Schirato, Margherita Maiuri, Andrea Toma, Silvio Fugattini, Remo Proietti Zaccaria, Paolo Laporta, Peter Nordlander, **Giulio Cerullo**, Alessandro Alabastri & Giuseppe Della Valle, “Transient optical symmetry breaking for ultrafast broadband dichroism in plasmonic metasurfaces”, *Nature Photonics* **14**, 723–727 (2020).
449. C. J. Sayers, H. Hedayat, A. Ceraso, F. Muser, M. Cattelan, L. S. Hart, L. S. Farrar, S. Dal Conte, **G. Cerullo**, C. Dallera, E. Da Como, and E. Carpene, “Coherent phonons and the interplay between charge density wave and Mott phases in 1T-TaSe₂”, *Phys. Rev. B* **102**, 161105 (R) (2020).
450. Chiara Trovatiello, Florian Katsch, Nicholas J. Borys, Malte Selig, Kaiyuan Yao, Rocio Borrego-Varillas, Francesco Scotognella, Ilka Kriegel, Aiming Yan, Alex Zettl, P. James Schuck, Andreas Knorr, **Giulio Cerullo** & Stefano Dal Conte, “The ultrafast onset of exciton formation in 2D semiconductors”, *Nat Commun* **11**, 5277 (2020). <https://doi.org/10.1038/s41467-020-18835-5>.
451. Paolo Franceschini, Luca Carletti, Anatoly P. Pushkarev, Fabrizio Preda, Antonio Perri, Andrea Tognazzi, Andrea Ronchi, Gabriele Ferrini, Stefania Pagliara, Francesco Banfi, Dario Polli, Giulio Cerullo, Costantino De Angelis, Sergey V. Makarov, and Claudio Giannetti, “Tuning the Ultrafast Response of Fano Resonances in Halide Perovskite Nanoparticles”, *ACS Nano* 2020 **14** (10), 13602-13610. DOI: 10.1021/acsnano.0c05710
452. C. Zeiser, L. Moretti, D. Lepple, G. Cerullo, M. Maiuri, K. Broch, “Singlet Heterofission in Tetracene–Pentacene Thin-Film Blends”, *Angew. Chem. Int. Ed.* 2020, **59**, 19966.
453. Ce Xu, Hui Wen Yong, Jinlu He, Run Long, Alisson R. Cadore, Ioannis Paradisanos, Anna K. Ott, Giancarlo Soavi, Sefaattin Tongay, **Giulio Cerullo**, Andrea C. Ferrari, Oleg V. Prezhdo, and Zhi-Heng Loh, “Weak Distance Dependence of Hot-Electron-Transfer Rates at the

Interface between Monolayer MoS₂ and Gold”, ACS Nano 2021, **15** (1), 819-828. DOI: 10.1021/acsnano.0c07350

454. Moretti, Luca, Mazzanti, Andrea, Rossetti, Arianna, Schirato, Andrea, Polito, Laura, Pizzetti, Fabio, Sacchetti, Alessandro, **Cerullo, Giulio**, Della Valle, Giuseppe, Rossi, Filippo and Maiuri, Margherita. "Plasmonic control of drug release efficiency in agarose gel loaded with gold nanoparticle assemblies" Nanophotonics, vol. 10, no. 1, 2021, pp. 247-257. <https://doi.org/10.1515/nanoph-2020-0418>.
455. Franco V. A. Camargo, Yuval Ben-Shahar, Tetsuhiko Nagahara, Yossef E. Panfil, Mattia Russo, Uri Banin, and **Giulio Cerullo**, “Visualizing Ultrafast Electron Transfer Processes in Semiconductor–Metal Hybrid Nanoparticles: Toward Excitonic–Plasmonic Light Harvesting”, Nano Lett. 2021, **21** (3), 1461-1468. DOI: 10.1021/acs.nanolett.0c04614
456. Matz Liebel, Franco V. A. Camargo, Giulio Cerullo, and Niek F. van Hulst, “Ultrafast Transient Holographic Microscopy”, Nano Lett. 2021, **21** (4), 1666-1671. DOI: 10.1021/acs.nanolett.0c04416
457. Donghai Li, Chiara Trovatello, Stefano Dal Conte, Matthias Nuß, Giancarlo Soavi, Gang Wang, Andrea C. Ferrari, **Giulio Cerullo** & Tobias Brixner, “Exciton–phonon coupling strength in single-layer MoSe₂ at room temperature”, Nat Commun **12**, 954 (2021). <https://doi.org/10.1038/s41467-021-20895-0>
458. Zilong Wang, Patrick Altmann, Christoph Gadermaier, Yating Yang, Wei Li, Lavinia Ghirardini, Chiara Trovatello, Marco Finazzi, Lamberto Duò, Michele Celebrano, Run Long, Deji Akinwande, Oleg V. Prezhdo, Giulio Cerullo, and Stefano Dal Conte, “Phonon-Mediated Interlayer Charge Separation and Recombination in a MoSe₂/WSe₂ Heterostructure”, Nano Lett. 2021, **21** (5), 2165-2173. DOI: 10.1021/acs.nanolett.0c04955
459. Carlo M. Valensise, Alessandro Giuseppe, **Giulio Cerullo**, and Dario Polli, "Deep reinforcement learning control of white-light continuum generation," Optica **8**, 239-242 (2021).
460. Ivan Grigioni, Annalisa Polo, Maria Vittoria Dozzi, Lucia Ganzer, Benedetto Bozzini, **Giulio Cerullo**, and Elena Selli, “Ultrafast Charge Carrier Dynamics in CuWO₄ Photoanodes”, J. Phys. Chem. C 2021, **125** (10), 5692-5699. DOI: 10.1021/acs.jpcc.0c11607
461. Chiara Trovatello, Andrea Marini, Xinyi Xu, Changhwan Lee, Fang Liu, Nicola Curreli, Cristian Manzoni, Stefano Dal Conte, Kaiyuan Yao, Alessandro Ciattoni, James Hone, Xiaoyang Zhu, P. James Schuck & Giulio Cerullo, “Optical parametric amplification by monolayer transition metal dichalcogenides”, Nature Photonics **15**, 6–10 (2021).
462. Eva A. A. Pogna, Xiaoyu Jia, Alessandro Principi, Alexander Block, Luca Banszerus, Jincan Zhang, Xiaoting Liu, Thibault Sohier, Stiven Forti, Karuppasamy Soundarapandian, Bernat Terrés, Jake D. Mehew, Chiara Trovatello, Camilla Coletti, Frank H. L. Koppens, Mischa Bonn, Hai I. Wang, Niek van Hulst, Matthieu J. Verstraete, Hailin Peng, Zhongfan Liu, Christoph Stampfer, **Giulio Cerullo**, and Klaas-Jan Tielrooij, “Hot-Carrier Cooling in High-Quality Graphene Is Intrinsically Limited by Optical Phonons”, ACS Nano 2021, **15** (7), 11285-11295. DOI: 10.1021/acsnano.0c10864

463. Nicola Gasparini, Franco V. A. Camargo, Stefan Frühwald, Tetsuhiko Nagahara, Andrej Classen, Steffen Roland, Andrew Wadsworth, Vasilis G. Gregoriou, Christos L. Chochos, Dieter Neher, Michael Salvador, Derya Baran, Iain McCulloch, Andreas Görling, Larry Lüer, **Giulio Cerullo** & Christoph J. Brabec, "Adjusting the energy of interfacial states in organic photovoltaics for maximum efficiency", *Nat Commun* **12**, 1772 (2021). <https://doi.org/10.1038/s41467-021-22032-3>
464. Mattia Russo, Anna Paola Casazza, **Giulio Cerullo**, Stefano Santabarbara, and Margherita Maiuri, "Direct Evidence for Excitation Energy Transfer Limitations Imposed by Low-Energy Chlorophylls in Photosystem I–Light Harvesting Complex I of Land Plants", *J. Phys. Chem. B* **2021**, **125** (14), 3566-3573. DOI: 10.1021/acs.jpccb.1c01498
465. M. T. Peschel, P. Kabaciński, D. P. Schwinger, E. Thyraug, **G. Cerullo**, T. Bach, J. Hauer, R. de Vivie-Riedle, "Activation of 2-Cyclohexenone by BF₃ Coordination: Mechanistic Insights from Theory and Experiment", *Angew. Chem. Int. Ed.* **2021**, **60**, 10155.
466. Mahima Makkar, Lakshay Dheer, Anjali Singh, Luca Moretti, Margherita Maiuri, Soumen Ghosh, **Giulio Cerullo**, Umesh V. Waghmare, and Ranjani Viswanatha, "Magneto-Optical Stark Effect in Fe-Doped CdS Nanocrystals", *Nano Lett.* **21** (9), 3798-3804 (2021). DOI: 10.1021/acs.nanolett.1c00126
467. Lavinia Ghirardini, Eva A A Pogna, Giancarlo Soavi, Andrea Tomadin, Paolo Biagioni, Stefano Dal Conte, Sandro Mignuzzi, Domenico De Fazio, Takashi Taniguchi, Kenji Watanabe, Lamberto Duò, Marco Finazzi, Marco Polini, Andrea C. Ferrari, Giulio Cerullo and Michele Celebrano, "Tunable broadband light emission from graphene", *2D Mater.* **8**, 035026 (2021).
468. Michele Celebrano, Davide Rocco, Marco Gandolfi, Attilio Zilli, Francesco Rusconi, Andrea Tognazzi, Andrea Mazzanti, Lavinia Ghirardini, Eva A. A. Pogna, Luca Carletti, Camilla Baratto, Giuseppe Marino, Carlo Gigli, Paolo Biagioni, Lamberto Duò, **Giulio Cerullo**, Giuseppe Leo, Giuseppe Della Valle, Marco Finazzi, and Costantino De Angelis, "Optical tuning of dielectric nanoantennas for thermo-optically reconfigurable nonlinear metasurfaces," *Opt. Lett.* **46**, 2453-2456 (2021)
469. Veronica R. Policht, Mattia Russo, Fang Liu, Chiara Trovatiello, Margherita Maiuri, Yusong Bai, Xiaoyang Zhu, Stefano Dal Conte, and Giulio Cerullo, "Dissecting Interlayer Hole and Electron Transfer in Transition Metal Dichalcogenide Heterostructures via Two-Dimensional Electronic Spectroscopy", *Nano Lett.* **2021** **21** (11), 4738-4743. DOI: 10.1021/acs.nanolett.1c01098
470. Florian Nicolai, Niklas Müller, Cristian Manzoni, Giulio Cerullo, and Tiago Buckup, "Acousto-optic modulator based dispersion scan for phase characterization and shaping of femtosecond mid-infrared pulses," *Opt. Express* **29**, 20970-20980 (2021).
471. Mazzanti, A., Pogna, E.A.A., Ghirardini, L., Celebrano, M., Schirato, A., Marino, G., Lemaître, A., Finazzi, M., De Angelis, C., Leo, G., **Cerullo, G.** and Della Valle, G. (2021),

- All-Optical Modulation with Dielectric Nanoantennas: Multiresonant Control and Ultrafast Spatial Inhomogeneities. *Small Sci.*, 1: 2000079. <https://doi.org/10.1002/smssc.202000079>
- 472.A. Bresci, M. Guizzardi, C. M. Valensise, F. Marangi, F. Scotognella, **G. Cerullo**, and D. Polli, "Removal of cross-phase modulation artifacts in ultrafast pump–probe dynamics by deep learning", *APL Photonics* **6**, 076104 (2021). <https://doi.org/10.1063/5.0057404>
- 473.Eva Arianna Aurelia Pogna, Michele Celebrano, Andrea Mazzanti, Lavinia Ghirardini, Luca Carletti, Giuseppe Marino, Andrea Schirato, Daniele Viola, Paolo Laporta, Costantino De Angelis, Giuseppe Leo, **Giulio Cerullo**, Marco Finazzi, and Giuseppe Della Valle, "Ultrafast, All Optically Reconfigurable, Nonlinear Nanoantenna", *ACS Nano* 2021 **15** (7), 11150-11157. DOI: 10.1021/acsnano.1c03386
- 474.Soumen Ghosh, Georg Herink, Antonio Perri, Fabrizio Preda, Cristian Manzoni, Dario Polli, and **Giulio Cerullo**, "Broadband Optical Activity Spectroscopy with Interferometric Fourier-Transform Balanced Detection", *ACS Photonics* 2021 **8** (8), 2234-2242. DOI: 10.1021/acsp Photonics.0c01866
- 475.Franco V. A. Camargo, Federico Perozeni, Gabriel de la Cruz Valbuena, Luca Zuliani, Samim Sardar, **Giulio Cerullo**, Cosimo D'Andrea, and Matteo Ballottari, "The Role of Acidic Residues in the C Terminal Tail of the LHCSR3 Protein of *Chlamydomonas reinhardtii* in Non-Photochemical Quenching", *J. Phys. Chem. Lett.* **12** (29), 6895-6900 (2021). DOI: 10.1021/acs.jpcclett.1c01382
- 476.Clemens Zeiser, Luca Moretti, Thomas Geiger, Lukas Kalix, Ana M. Valencia, Margherita Maiuri, Caterina Cocchi, Holger F. Bettinger, **Giulio Cerullo**, and Katharina Broch, "Permanent Dipole Moments Enhance Electronic Coupling and Singlet Fission in Pentacene", *J. Phys. Chem. Lett.* **12** (31), 7453-7458 (2021). DOI: 10.1021/acs.jpcclett.1c01805
- 477.Ajay Ram Srimath Kandada, **Giulio Cerullo**, "The path toward quantum advantage in optical spectroscopy of materials", *Proceedings of the National Academy of Sciences* 118 (36) e2112897118 (2021). DOI: 10.1073/pnas.2112897118
- 478.Sebastian Klimmer, Omid Ghaebi, Ziyang Gan, Antony George, Andrey Turchanin, **Giulio Cerullo** and Giancarlo Soavi, "All-optical polarization and amplitude modulation of second-harmonic generation in atomically thin semiconductors". *Nat. Photon.* (2021). <https://doi.org/10.1038/s41566-021-00859-y>
- 479.Ivo H. M. van Stokkum, Miroslav Klotz, Dario Polli, Daniele Viola, Jörn Weißenborn, Ebo Peerbooms, **Giulio Cerullo**, and John T. M. Kennis, "Vibronic dynamics resolved by global and target analysis of ultrafast transient absorption spectra", *J. Chem. Phys.* **155**, 114113 (2021) <https://doi.org/10.1063/5.0060672>
- 480.Rocío Borrego-Varillas, Artur Nenov, Piotr Kabaciński, Irene Conti, Lucia Ganzer, Aurelio Oriana, Vishal Kumar Jaiswal, Ines Delfino, Oliver Weingart, Cristian Manzoni, Ivan Rivalta, Marco Garavelli and **Giulio Cerullo**, "Tracking excited state decay mechanisms of pyrimidine nucleosides in real time". *Nat Commun* **12**, 7285 (2021). <https://doi.org/10.1038/s41467-021-27535-7>

- 481.D. Bossini, S. Dal Conte, M. Terschanski, G. Springholz, A. Bonanni, K. Deltenre, F. Anders, G. S. Uhrig, **G. Cerullo**, and M. Cinchetti "Femtosecond phononic coupling to both spins and charges in a room-temperature antiferromagnetic semiconductor", *Phys. Rev. B* **104**, 224424 (2021). <https://doi.org/10.1103/PhysRevB.104.224424>
- 482.B. Talone, M. Bazzarelli, A. Schirato, F. Dello Vicario, D. Viola, E. Jacchetti, M. Bregonzio, M. T. Raimondi, **G. Cerullo**, and D. Polli, "Phototoxicity induced in living HeLa cells by focused femtosecond laser pulses: a data-driven approach," *Biomed. Opt. Express* **12**, 7886-7905 (2021).
- 483.Andrea Villa, Aaron M. Ross, Riccardo Gotti, Marco Lamperti, Francesco Scotognella, **Giulio Cerullo**, and Marco Marangoni, "Broadly tunable mid-infrared femtosecond pulses directly generated by an optical parametric amplifier," *OSA Continuum* **4**, 2837-2844 (2021). [DOI: 10.1364/OSAC.439298](https://doi.org/10.1364/OSAC.439298)
- 484.B. Demoulin, M. Maiuri, T. Berbasova, J. H. Geiger, B. Borhan, M. Garavelli, **G. Cerullo**, I. Rivalta, "Control of Protonated Schiff Base Excited State Decay within Visual Protein Mimics: A Unified Model for Retinal Chromophores", *Chem. Eur. J.* **27**, 16389 (2021). [DOI: 10.1002/chem.202102383](https://doi.org/10.1002/chem.202102383)
- 485.Francesco Segatta, Mattia Russo, Daniel R. Nascimento, Davide Presti, Francesco Rigodanza, Artur Nenov, Andrea Bonvicini, Alberto Arcioni, Shaul Mukamel, Margherita Maiuri, Luca Muccioli, Niranjan Govind, **Giulio Cerullo**, and Marco Garavelli, "In Silico Ultrafast Nonlinear Spectroscopy Meets Experiments: The Case of Perylene Bisimide Dye", *Journal of Chemical Theory and Computation* **17** (11), 7134-7145 (2021).[DOI: /10.1021/acs.jctc.1c00570](https://doi.org/10.1021/acs.jctc.1c00570)
- 486.Piotr Kabaciński, Marco Romanelli, Eveliina Ponkkonen, Vishal Kumar Jaiswal, Thomas Carell, Marco Garavelli, **Giulio Cerullo**, and Irene Conti, "Unified Description of Ultrafast Excited State Decay Processes in Epigenetic Deoxycytidine Derivatives", *The Journal of Physical Chemistry Letters* **12** (45), 11070-11077 (2021). [DOI: 10.1021/acs.jpcllett.1c02909](https://doi.org/10.1021/acs.jpcllett.1c02909)
- 487.E.A.A. Pogna, A. Tomadin, O. Balci, G. Soavi, I. Paradisanos, M. Guizzardi, P. Pedrinazzi, S. Mignuzzi, K.-J. Tielrooij, M. Polini, A.C. Ferrari, and G. Cerullo "Electrically Tunable Nonequilibrium Optical Response of Graphene", *ACS Nano* **16**, 3613-3624 (2022).
- 488.A. Schirato, G. Crotti, M. Gonçalves Silva, D.C. Teles-Ferreira, C. Manzoni, R. Proietti Zaccaria, P. Laporta, A.M. de Paula, G. Cerullo, and G. Della Valle, "Ultrafast Plasmonics Beyond the Perturbative Regime: Breaking the Electronic-Optical Dynamics Correspondence", *Nano Lett.* **22**, 2748-2754 (2022).
- 489.V.K. Jaiswal, P. Kabaciński, B.E. Nogueira de Faria, M. Gentile, A.M. de Paula, R. Borrego-Varillas, A. Nenov, I. Conti, **G. Cerullo**, and M. Garavelli, "Environment-Driven Coherent Population Transfer Governs the Ultrafast Photophysics of Tryptophan", *J. Am. Chem. Soc.* **144**, 12884-12892 (2022).
- 490.A. De la Cadena, F. Vernuccio, A. Ragni, G. Sciortino, R. Vanna, C. Ferrante, N. Pediconi, C. Valensise, L. Genchi, S.P. Laptinok, A. Doni, M. Erreni, T. Scopigno, C. Liberale, G. Ferrari,

- M. Sampietro, **G. Cerullo**, and D. Polli, "Broadband stimulated Raman imaging based on multi-channel lock-in detection for spectral histopathology", *APL Photonics* **7**, 076104 (2022).
- 491.O. Dogadov, C. Trovatiello, B. Yao, G. Soavi, **G. Cerullo**, "Parametric Nonlinear Optics with Layered Materials and Related Heterostructures", *Laser & Photonics Rev.* **16**, 2100726 (2022).
- 492.C. Trovatiello, F. Katsch, Q. Li, X. Zhu, A. Knorr, **G. Cerullo**, and S. Dal Conte, "Disentangling Many-Body Effects in the Coherent Optical Response of 2D Semiconductors", *Nano Lett.* **22**, 5322-5329 (2022).
- 493.S. Sardar, R. Caferri, F.V.A. Camargo, J. Pamos Serrano, A. Ghezzi, S. Capaldi, L. Dall'Osto, R. Bassi, C. D'Andrea, and **G. Cerullo**, "Molecular mechanisms of light harvesting in the minor antenna CP29 in near-native membrane lipidic environment", *J. Chem. Phys.* **156**, 205101 (2022).
- 494.M. Liebel, F.V.A. Camargo, G. Cerullo, N.F. Van Hulst, "Widefield phototransient imaging for visualizing 3D motion of resonant particles in scattering environments", *Nanoscale* **14**, 3062-3068 (2022).
- 495.M. Forjan, G. Zgrablić, S. Vdović, M. Šekutor, N. Basarić, P. Kabacinski, M. N. H. Pashaki, H.-M. Frey, A. Cannizzo, **G. Cerullo** "Photogeneration of quinone methide from adamantylphenol in an ultrafast non-adiabatic dehydration reaction", *Phys. Chem. Chem. Phys.* **24**, 4384-4393 (2022).
- 496.M. Guernelli, E. Bakalis, A. Mavridi-Printezi, V. Petropoulos, G. Cerullo, F. Zerbetto, M. Montalti, "Photothermal motion: effect of low-intensity irradiation on the thermal motion of organic nanoparticles", *Nanoscale* **14**, 7233-7241 (2022)
- 497.G. Cerullo and R. Vanna, "Lasers for Health", *Europhysics News* **53**, 28–31 (2022)
- 498.D.C. Teles-Ferreira, I.H.M. van Stokkum, I. Conti, L. Ganzer, C. Manzoni, M. Garavelli, G. Cerullo, A. Nenov, R. Borrego-Varillas, A.M. de Paula, "Coherent vibrational modes promote the ultrafast internal conversion and intersystem crossing in thiobases", *Phys. Chem. Chem. Phys.* **24**, 21750-21758 (2022).
- 499.J.Q. Quach, K.E. McGhee, L. Ganzer, D.M. Rouse, B.W. Lovett, E.M. Gauger, J. Keeling, G. Cerullo, D.G. Lidzey, T. Virgili, "Superabsorption in an organic microcavity: Toward a quantum battery", *Sci. Adv.* **8**, eabk3160 (2022),
- 500.R. Vanna, A. De la Cadena, B. Talone, C. Manzoni, M. Marangoni, D. Polli, and G. Cerullo, "Vibrational imaging for label-free cancer diagnosis and classification," *Riv. Nuovo Cim.* **45**, 107–187 (2022).
- 501.D.C. Teles-Ferreira, C. Manzoni, L. Martínez-Fernández, G. Cerullo, A.M. de Paula, R. Borrego-Varillas, "Ultrafast Excited-State Decay Mechanisms of 6-Thioguanine Followed by Sub-20 fs UV Transient Absorption Spectroscopy", *Molecules* **27**, 1200 (2022).
- 502.A.M. Ross, S. Osella, V.R. Policht, M. Zheng, M. Maggini, F. Marangi, G. Cerullo, T. Gatti, and F. Scotognella, "Deciphering Photoinduced Charge Transfer Dynamics in a Cross-Linked Graphene–Dye Nanohybrid", *J. Phys. Chem. C* **126**, 3569-3581 (2022).

- 503.C. Trovatello, A. Genco, C. Cruciano, B. Ardini, Q. Li, X. Zhu, G. Valentini, G. Cerullo, and C. Manzoni, “Hyperspectral microscopy of two-dimensional semiconductors,” *Opt. Mater. X* **14**, 100145 (2022).
- 504.C. Trovatello, G. Piccinini, S. Forti, F. Fabbri, A. Rossi, S. De Silvestri, C. Coletti, G. Cerullo, S. Dal Conte, “Ultrafast hot carrier transfer in WS₂/graphene large area heterostructures”, *npj 2D Mater Appl* **6**, 24 (2022).
- 505.A. Schirato, L. Moretti, Z. Yang, A. Mazzanti, G. Cerullo, M.-P. Pileni, M. Maiuri, and G. Della Valle, “Chemically-Controlled Ultrafast Photothermal Response in Plasmonic Nanostructured Assemblies”, *J. Phys. Chem. C* **126**, 6308-6317 (2022).
- 506.C. Conci, E. Jacchetti, L. Sironi, L. Gentili, G. Cerullo, R. Osellame, G. Chirico, M. T. Raimondi, “A Miniaturized Imaging Window to Quantify Intravital Tissue Regeneration within a 3D Microscaffold in Longitudinal Studies”, *Adv. Optical Mater.* **10**, 2101103 (2022).
- 507.D. Uhl, A. Wituschek, U. Bangert, M. Binz, C. Callegari, M. Di Fraia, O. Plekan, K.C. Prince, G. Cerullo, L. Giannessi, M. Danailov, G. Sansone, T. Laarmann, R. Michiels, M. Mudrich, P. Piseri, R.J. Squibb, R. Feifel, S. Stranges, F. Stienkemeier, L. Bruder, “Improved stabilization scheme for extreme ultraviolet quantum interference experiments”, *J. Phys. B: At. Mol. Opt. Phys.* **55**, 074002 (2022).
- 508.D. Gatti, M. Lamperti, A. Zilli, F. Canella, G. Cerullo, G. Galzerano, P. Laporta, and N. Coluccelli, "Standoff CARS spectroscopy and imaging using an ytterbium-based laser system," *Opt. Express* **30**, 15376-15387 (2022)
- 509.M. Russo, A.P. Casazza, G. Cerullo, S. Santabarbara, M. Maiuri, “Ultrafast excited state dynamics in the monomeric and trimeric photosystem I core complex of *Spirulina platensis* probed by two-dimensional electronic spectroscopy”, *J. Chem. Phys.* **156**, 164202 (2022).
- 510.A. Schirato, A. Toma, R. Proietti Zaccaria, A. Alabastri, G. Cerullo, G. DellaValle, M. Maiuri, “All-Optical Reconfiguration of Ultrafast Dichroism in Gold Metasurfaces”, *Adv. Optical Mater.* **10**, 2102549 (2022).
- 511.F. Vernuccio, A. Bresci, V. Cimini, A. Giuseppi, G. **Cerullo**, D. Polli, C.M. Valensise, “Artificial Intelligence in Classical and Quantum Photonics” *Laser & Photonics Rev.* **16**, 2100399 (2022).
- 512.
- 513.A. Genco, G. Cerullo, “Optical nonlinearity goes ultrafast in 2D semiconductor-based nanocavities”, *Light Sci Appl* **11**, 127 (2022).
- 514.C. Pigliacelli, A. Acocella, I. Díez, L. Moretti, V. Dichiarante, N. Demitri, H. Jiang, M. Maiuri, R.H.A. Ras, F. Baldelli Bombelli, G. Cerullo, F. Zerbetto, P. Metrangolo, G. Terraneo, “High-resolution crystal structure of a 20 kDa superfluorinated gold nanocluster”, *Nat. Commun.* **13**, 2607 (2022).
- 515.S.A. Bourelle, F.V.A. Camargo, S. Ghosh, T. Neumann, T.W.J. van de Goor, R. Shivanna, T. Winkler, G. Cerullo, F. Deschler, “Optical control of exciton spin dynamics in layered metal halide perovskites via polaronic state formation”, *Nat Commun* **13**, 3320 (2022).

- 516.C.A. Musi, L. Colnaghi, A. Giani, E.C. Priori, G. Marchini, M. Tironi, C. Conci, G. Cerullo, R. Osellame, M.T. Raimondi, A. Remuzzi, T. Borsello, "Effect of 3D Synthetic Microscaffold Nichoid on the Morphology of Cultured Hippocampal Neurons and Astrocytes", *Cells* **11**, 2008 (2022).
- 517.C. J. Sayers, S. DalConte, D. Wolverson, C. Gadermaier, G. Cerullo, E. Carpena, E. DaComo, "Spectrally Resolving the Phase and Amplitude of Coherent Phonons in the Charge Density Wave State of 1T-TaSe₂", *Adv. Optical Mater.* **10**, 2200362 (2022).
- 518.F. Vernuccio, A. Bresci, B. Talone, A. de la Cadena, C. Ceconello, S. Mantero, C. Sobacchi, R. Vanna, G. Cerullo, and D. Polli, "Fingerprint multiplex CARS at high speed based on supercontinuum generation in bulk media and deep learning spectral denoising," *Opt. Express* **30**, 30135-30148 (2022)
- 519.A. Polo, M.V. Dozzi, I. Grigioni, C. Lhermitte, N. Plainpan, L. Moretti, G. Cerullo, K. Sivula, E. Selli, "Multiple Effects Induced by Mo⁶⁺ Doping in BiVO₄ Photoanodes", *Sol. RRL* **6**, 2200349 (2022).
- 520.D. Uhl, A. Wituschek, R. Michiels, F. Trinter, T. Jahnke, E. Allaria, C. Callegari, M. Danailov, M. Di Fraia, O. Plekan, U. Bangert, K. Dulitz, F. Landmesser, M. Michelbach, A. Simoncig, M. Manfredda, S. Spampinati, G. Penco, R.J. Squibb, R. Feifel, T. Laarmann, M. Mudrich, K.C. Prince, G. Cerullo, L. Giannessi, F. Stienkemeier, and L. Bruder, "Extreme Ultraviolet Wave Packet Interferometry of the Autoionizing HeNe Dimer", *J. Phys. Chem. Lett.* **13**, 8470-8476 (2022).
- 521.X. Xu, C. Trovatiello, F. Mooshammer, Y. Shao, S. Zhang, K. Yao, D.N. Basov, G. Cerullo, P. J. Schuck, "Towards compact phase-matched and waveguided nonlinear optics in atomically layered semiconductors", *Nat. Photon.* **16**, 698–706 (2022).
- 522.D.P. Schwinger, M.T. Peschel, T. Rigotti, P. Kabaciński, T. Knoll, E. Thyraug, G. Cerullo, J. Hauer, R. de Vivie-Riedle, and T. Bach, "Photoinduced B–Cl Bond Fission in Aldehyde-BCl₃ Complexes as a Mechanistic Scenario for C–H Bond Activation", *J. Am. Chem. Soc.* **144**, 18927-18937 (2022).
- 523.M. Fakis, V. Petropoulos, P. Hrobárik, J. Nociarová, P. Osuský, M. Maiuri, and G. Cerullo, "Exploring Solvent and Substituent Effects on the Excited State Dynamics and Symmetry Breaking of Quadrupolar Triarylamine End-Capped Benzothiazole Chromophores by Femtosecond Spectroscopy", *J. Phys. Chem. B* **126**, 8532-8543 (2022).
- 524.M. Russo, K.E. McGhee, T. Virgili, D.G. Lidzey, G. Cerullo, M. Maiuri, "Dephasing Processes in the Molecular Dye Lumogen-F Orange Characterized by Two-Dimensional Electronic Spectroscopy", *Molecules* **27**, 7095 (2022).
- 525.A. Genco, C. Cruciano, M. Corti, K.E. McGhee, B. Ardini, L. Sortino, L. Hüttenhofer, T. Virgili, D.G. Lidzey, S.A. Maier, A. Bassi, G. Valentini, G. Cerullo, and C. Manzoni, "k-Space Hyperspectral Imaging by a Birefringent Common-Path Interferometer", *ACS Photon.* **9**, 3563-3572 (2022).

- 526.F. Unger, L. Moretti, J. Hausch, J. Bredehoeft, C. Zeiser, S. Haug, R. Tempelaar, N.J. Hestand, G. Cerullo, and K. Broch, “Modulating Singlet Fission by Scanning through Vibronic Resonances in Pentacene-Based Blends”, *J. Am. Chem. Soc.* **144**, 20610-20619 (2022).
- 527.B. Talone, A. Bresci, F. Manetti, F. Vernuccio, A. De la Cadena, C. Ceconello, M.L. Schiavone, S. Mantero, C. Menale, R. Vanna, G. Cerullo, C. Sobacchi, D. Polli, “Label-free multimodal nonlinear optical microscopy reveals features of bone composition in pathophysiological conditions”, *Front. Bioeng. Biotechnol.* **10**, 1042680 (2022).
- 528.M. Forjan, S. Vdović, M. Šekutor, Đ. Škalamera, P. Kabaciński, G. Cerullo, “Photodehydration mechanisms of quinone methide formation from 2-naphthol derivatives”, *J. Photochem. Photobiol. A: Chemistry* **433**, 114171 (2022).
- 529.A. Schirato, M.G. Silva, D.C. Teles-Ferreira, C. Manzoni, A.M. de Paula, **G. Cerullo**, G. Della Valle, and M. Di Vece, “Disentangling the Ultrafast Nonlinear Optical Behavior of Plasmonic Resonances Near the Interband Transition”, *Adv. Photonics Res.* **4**, 2200081 (2023).
- 530.A. Schirato, M. Maiuri, G. Cerullo, and G. Della Valle, "Ultrafast hot electron dynamics in plasmonic nanostructures: experiments, modelling, design" *Nanophotonics* **12**, 1-28 (2023).
- 531.N. Coluccelli, G. Galzerano, P. Laporta, K. Curtis, C.L. Lonsdale, D. Padgen, C.R. Howle, and **G. Cerullo**, “Standoff detection of bacterial spores by field deployable coherent Raman spectroscopy”, *Sci. Rep.* **13**, 2634 (2023).
- 532.V. Smejkal, C. Trovatiello, Q. Li, S. Dal Conte, A. Marini, X. Zhu, **G. Cerullo**, and F. Libisch, "Photonic effects in the non-equilibrium optical response of two-dimensional semiconductors," *Opt. Express* **31**, 107-115 (2023).
- 533.G. Folpini, M. Palummo, D. Cortecchia, L. Moretti, G. Cerullo, A. Petrozza, G. Giorgi, A.R.S. Kandada, “Plurality of excitons in Ruddlesden–Popper metal halides and the role of the B-site metal cation”, *Mater. Adv.* **4**, 1720-1730 (2023).
- 534.S. Chakraborty, P. Mondal, M. Makkar, L. Moretti, G. Cerullo, and R. Viswanatha, “Transition Metal Doping in CdS Quantum Dots: Diffusion, Magnetism, and Ultrafast Charge Carrier Dynamics”, *Chem. Mater.* **35**, 2146-2154 (2023).
- 535.C. Manzoni, G. Cerullo, “Parametric nonlinear optics”, *Photoniques* **122**, 46-51 (2023).
- 536.J. Barsotti, S. Perotto, A. Candini, E. Colombo, F.V.A. Camargo, S. Di Marco, M. Zangoli, S. Sardar, A.J. Barker, C. D’Andrea, G. Cerullo, S. Rozen, F. Benfenati, F. Di Maria, and G. Lanzani, “Core–Shell Architecture in Poly(3-hexylthiophene) Nanoparticles: Tuning of the Photophysical Properties for Enhanced Neuronal Photostimulation”, *ACS Appl. Mat. Interf.* **15**, 13472-13483 (2023).
- 537.S. Ghosh, S. Bera, S. Sardar, S. Pal, F.V.A. Camargo, C. D’Andrea, and G. Cerullo, “Role of Efficient Charge Transfer at the Interface between Mixed-Phase Copper-Cuprous Oxide and Conducting Polymer Nanostructures for Photocatalytic Water Splitting”, *ACS Appl. Mat. Interf.* **15**, 18867-18877 (2023).

- 538.M. Lamperti, L. Rutkowski, D. Ronchetti, D. Gatti, R. Gotti, G. Cerullo, F. Thibault, H. Jóźwiak, S. Wójtewicz, P. Masłowski, P. Wcisło, D. Polli, M. Marangoni, “Stimulated Raman scattering metrology of molecular hydrogen”, *Commun. Phys.* **6**, 67 (2023).
- 539.C. J. Sayers, G. Cerullo, Y. Zhang, C. E. Sanders, R. T. Chapman, A. S. Wyatt, G. Chatterjee, E. Springate, D. Wolverson, E. Da Como, and E. Carpene, “Exploring the Charge Density Wave Phase of 1T-TaSe₂: Mott or Charge-Transfer Gap?”, *Phys. Rev. Lett.* **130**, 156401 (2023).
- 540.P. Franceschini, V.R. Policht, A. Milloch, A. Ronchi, S. Mor, S. Mellaerts, W.-F. Hsu, S. Pagliara, G. Ferrini, F. Banfi, M. Fabrizio, M. Menghini, J.-P. Locquet, S. Dal Conte, G. Cerullo, and C. Giannetti, “Coherent control of the orbital occupation driving the insulator-to-metal Mott transition in V₂O₃”, *Phys. Rev. B* **107**, L161110 (2023).
- 541.A. Genco, C. Trovatiello, C. Louca, K. Watanabe, T. Taniguchi, A.I. Tartakovskii, G. Cerullo, S. Dal Conte, “Ultrafast Exciton and Trion Dynamics in High-Quality Encapsulated MoS₂ Monolayers” *Phys. Status Solidi B* **260**, 2200376 (2023).
- 542.F. Vernuccio, R. Vanna, C. Ceconello, A. Bresci, F. Manetti, S. Sorrentino, S. Ghislanzoni, F. Lambertucci, O. Motiño, I. Martins, G. Kroemer, I. Bongarzone, G. Cerullo, and D. Polli, “Full-Spectrum CARS Microscopy of Cells and Tissues with Ultrashort White-Light Continuum Pulses”, *J. Phys. Chem. B* **127**, 4733-4745 (2023).
- 543.T. Flöry, V. Stummer, J. Pupeikis, B. Willenberg, A. Nussbaum-Lapping, E. Kaksis, F.V.A. Camargo, M. Barkauskas, C.R. Phillips, U. Keller, G. Cerullo, A. Pugžlys, A. Baltuška, “Rapid-Scan Nonlinear Time-Resolved Spectroscopy over Arbitrary Delay Intervals”, *Ultrafast Sci.* **3**, 0027 (2023).
- 544.S. Boazegevski, J.F. de Deus, D.A. Turchetti, L.C. Akcelrud, S. Sardar, C. D’Andrea, F.V.A. Camargo, G. Cerullo, G. Bressan, S.R. Meech, and I.A. Heisler, “Ultrafast Excited State Dynamics of a Fluorene Derivative Conjugated Polymer”, *J. Phys. Chem. C* **127**, 11570-11578 (2023).
- 545.B. Ardini, A. Bassi, A. Candeo, A. Genco, C. Trovatiello, F. Liu, X. Zhu, G. Valentini, G. Cerullo, R. Vanna, and C. Manzoni, "High-throughput multimodal wide-field Fourier-transform Raman microscope," *Optica* **10**, 663-670 (2023).
- 546.M. Hörmann, F. Visentin, A. Zanetta, J. Osmond, G. Grancini, N.F. van Hulst, M. Liebel, G. Cerullo, F.V.A. Camargo, “High-Sensitivity Visualization of Ultrafast Carrier Diffusion by Wide-Field Holographic Microscopy”, *Ultrafast Sci.* **3**, 0032 (2023).
- 547.S. Sorrentino, F. Manetti, A. Bresci, F. Vernuccio, C. Ceconello, S. Ghislanzoni, I. Bongarzone, R. Vanna, G. Cerullo, D. Polli, “Deep ensemble learning and transfer learning methods for classification of senescent cells from nonlinear optical microscopy images”, *Front. Chem.* **11**, 1213981 (2023).
- 548.C. Louca, A. Genco, S. Chiavazzo, T.P. Lyons, S. Randerson, C. Trovatiello, P. Claronino, R. Jayaprakash, X. Hu, J. Howarth, K. Watanabe, T. Taniguchi, S. Dal Conte, R. Gorbachev, D.G. Lidzey, G. Cerullo, O. Kyriienko, A.I. Tartakovskii, “Interspecies exciton interactions lead to

enhanced nonlinearity of dipolar excitons and polaritons in MoS₂ homobilayers”, *Nat. Commun.* **14**, 3818 (2023).

- 549.V. Petropoulos, I. Georgoulis, C. Vourdaki, P. Hrobárik, I. Sigmundová, J. Nociarová, M. Maiuri, G. Cerullo, M. Fakis, “Ultrafast Photophysics of Regioisomeric Triphenylamine Dyes Having Dipolar D- π -A-A and Octupolar D-(π -A-A)₃ Character with a Benzothiazole Unit in Matched or Mismatched Orientation”, *ChemPhysChem* **24**, e202300127 (2023).
- 550.N. Coluccelli, G. Cichelli, P. Laporta, and G. Cerullo, "Single-shot detection of bacterial spores with Yb-laser-based CARS spectroscopy," *Opt. Express* **31**, 23245-23259 (2023).
- 551.K.E. McGhee, M. Guizzardi, R. Jayaprakash, K. Georgiou, T. Jesewitsch, U. Scherf, G. Cerullo, A. Zasedatelev, T. Virgili, P. G. Lagoudakis, D. G. Lidzey, “Ultrafast Optical Control of Polariton Energy in an Organic Semiconductor Microcavity”, *Adv. Optical Mater.* **11**, 2300262 (2023).
- 552.P. Kabaciński, P. Marabotti, D. Fazzi, V. Petropoulos, A. Iudica, P. Serafini, G. Cerullo, C.S. Casari, and M. Zavelani-Rossi, “Disclosing Early Excited State Relaxation Events in Prototypical Linear Carbon Chains”, *J. Am. Chem. Soc.* **145**, 18382-18390 (2023).
- 553.C. Xu, G. Zhou, E.M. Alexeev, A.R. Cadore, I. Paradisanos, A.K. Ott, G. Soavi, S. Tongay, G. Cerullo, A.C. Ferrari, O.V. Prezhdo, and Z.-H. Loh, “Ultrafast Electronic Relaxation Dynamics of Atomically Thin MoS₂ Is Accelerated by Wrinkling”, *ACS Nano* **17**, 16682-16694 (2023).
- 554.L. Moretti, E. Rojas-Gatjens, L. Uboldi, D.O. Tiede, E.J. Kumar, C. Trovatiello, F. Preda, A. Perri, C. Manzoni, G. Cerullo, A. R.S. Kandada, “Measurement principles for quantum spectroscopy of molecular materials with entangled photons”, *J. Chem. Phys.* **159**, 084201 (2023).
- 555.M. Marini, A. Nardini, R. Martínez Vázquez, C. Conci, M. Bouzin, M. Collini, R. Osellame, G. Cerullo, B. S. Kariman, M. Farsari, E. Kabouraki, M. T. Raimondi, G. Chirico, “Microlenses Fabricated by Two-Photon Laser Polymerization for Cell Imaging with Non-Linear Excitation Microscopy”, *Adv. Funct. Mater.* **33**, 2213926 (2023).
- 556.M. Piccardo, M. de Oliveira, V.R. Policht, M. Russo, B. Ardini, M. Corti, G. Valentini, J. Vieira, C. Manzoni, G. Cerullo, A. Ambrosio, “Broadband control of topological–spectral correlations in space–time beams”, *Nat. Photon.* **17**, 822–828 (2023).
- 557.F. Donnalaja, M.T. Raimondi, L. Messa, B. Barzaghini, F. Carnevali, E. Colombo, D. Mazza, C. Martinelli, L. Boeri, F. Rey, C. Cereda, R. Osellame, G. Cerullo, S. Carelli, M. Soncini, E. Jacchetti, “3D photopolymerized microstructured scaffolds influence nuclear deformation, nucleo/cytoskeletal protein organization, and gene regulation in mesenchymal stem cells”, *APL Bioeng.* **7**, 036112 (2023).
- 558.A. Senkić, A. Supina, M. Akturk, C. Gadermaier, M. Maiuri, G. Cerullo and N. Vujičić, “Microscopic investigation of intrinsic defects in CVD grown MoS₂ monolayers”, *Nanotechnology* **34**, 475705 (2023).
- 559.A. Bresci, J.H. Kim, S. Ghislanzoni, F. Manetti, L. Wu, F. Vernuccio, C. Ceconello, S. Sorrentino, I. Barman, I. Bongarzone, G. Cerullo, R. Vanna, D. Polli, ”Noninvasive morpho-

- molecular imaging reveals early therapy-induced senescence in human cancer cells”, *Sci. Adv.* **9**, eadg6231 (2023).
- 560.M. Lamperti, L. Rutkowski, D. Gatti, R. Gotti, L. Moretti, D. Polli, G. Cerullo, M. Marangoni, “A stimulated Raman loss spectrometer for metrological studies of quadrupole lines of hydrogen isotopologues”, *Mol. Phys.* **121**, e2196353 (2023).
- 561.C.J. Sayers, A. Genco, C. Trovatiello, S. Dal Conte, V.O. Khaustov, J. Cervantes-Villanueva, D. Sangalli, A. Molina-Sanchez, C. Coletti, C. Gadermaier, and G. Cerullo, “Strong Coupling of Coherent Phonons to Excitons in Semiconducting Monolayer MoTe₂”, *Nano Lett.* **23**, 9235-9242 (2023).
- 562.J.Q. Quach, G. Cerullo, T. Virgili, “Quantum batteries: The future of energy storage?”, *Joule* **7**, 2195-2200 (2023).
- 563.V. Petropoulos, L. Uboldi, M. Maiuri, G. Cerullo, L. Martinez-Fernandez, E. Balanikas, and D. Markovitsi, “Effect of the DNA Polarity on the Relaxation of Its Electronic Excited States”, *J. Phys. Chem. Lett.* **14**, 10219-10224 (2023).
- 564.E. Fresch, F.V.A. Camargo, Q. Shen, C.C. Bellora, T. Pullerits, G.S. Engel, G. Cerullo, and E. Collini “Two-dimensional electronic spectroscopy”, *Nat. Rev. Methods Primers* **3**, 84 (2023).
- 565.V.R. Policht, H. Mittenzwey, O. Dogadov, M. Katzer, A. Villa, Q. Li, B. Kaiser, A.M. Ross, F. Scotognella, X. Zhu, A. Knorr, M. Selig, G. Cerullo, and S. Dal Conte, “Time-domain observation of interlayer exciton formation and thermalization in a MoSe₂/WSe₂ heterostructure”, *Nat. Commun.* **14**, 7273 (2023).
- 566.F. Aleotti, V. Petropoulos, H. Van Overeem, M. Pettini, M. Mancinelli, D. Pecorari, M. Maiuri, R. Medri, A. Mazzanti, F. Preda, A. Perri, D. Polli, I. Conti, G. Cerullo, and M. Garavelli, “Engineering Azobenzene Derivatives to Control the Photoisomerization Process”, *J. Phys. Chem. A* **127**, 10435-10449 (2023).
- 567.F. Morabito, K. Synnatschke, J. D. Mehew, S. Varghese, C.J. Sayers, G. Folpini, A. Petrozza, G. Cerullo, K.-J. Tielrooij, J. Coleman, V. Nicolosi, C. Gadermaier, “Long lived photogenerated charge carriers in few-layer transition metal dichalcogenides obtained from liquid phase exfoliation”, *Nanoscale Adv.* **6**, 1074-1083 (2024).
- 568.F. Hempel, F. Vernuccio, L. König, R. Buschbeck, M. Rüsing, G. Cerullo, D. Polli, and L.M. Eng, "Comparing transmission- and epi-BCARS: a round robin on solid-state materials," *Appl. Opt.* **63**, 112-121 (2024).
- 569.T. Nagahara, F.V.A. Camargo, F. Xu, L. Ganzer, M. Russo, P. Zhang, A. Perri, G. de la Cruz Valbuena, I.A. Heisler, C. D’Andrea, D. Polli, K. Müllen, X. Feng, Y. Mai, and G. Cerullo, “Electronic Structure of Isolated Graphene Nanoribbons in Solution Revealed by Two-Dimensional Electronic Spectroscopy”, *Nano Lett.* **24**, 797-804 (2024).
- 570.C. Xu, N. Barden, E.M. Alexeev, X. Wang, R. Long, A.R. Cadore, I. Paradisanos, A.K. Ott, G. Soavi, S. Tongay, G. Cerullo, A.C. Ferrari, O.V. Prezhdo, and Z.-H. Loh, “Ultrafast Charge Transfer and Recombination Dynamics in Monolayer–Multilayer WSe₂ Junctions Revealed by Time-Resolved Photoemission Electron Microscopy”, *ACS Nano* **18**, 1931-1947 (2024).

- 571.B. Ardini, F. Richter, L. Ubaldi, P. Cinquegrana, M. Danailov, A. Demidovich, S.D. Ganeshamandiram, S. Hartweg, G. Kurdi, F. Landmesser, M. Michelbach, A. Ngai, I. Nikolov, N. Rendler, F. Stienkemeier, D. Uhl, L. Bruder, G. Cerullo and C. Manzoni, “Generation of interferometrically stable pulse pairs from a free-electron laser using a birefringent interferometer”, *J. Phys. B: At. Mol. Opt. Phys.* **57**, 075402 (2024).
- 572.C. Conci, L. Sironi, E. Jacchetti, D. Panzeri, D. Inverso, R. Martínez Vázquez, R. Osellame, M. Collini, G. Cerullo, G. Chirico, M.T. Raimondi, “In vivo label-free tissue histology through a microstructured imaging window”, *APL Bioeng.* **8**, 016102 (2024).
- 573.S. Sardar, R. Caferri, F.V. A. Camargo, S. Capaldi, A. Ghezzi, L. Dall’Osto, C. D’Andrea, G. Cerullo, and R. Bassi, “Site-Directed Mutagenesis of the Chlorophyll-Binding Sites Modulates Excited-State Lifetime and Chlorophyll–Xanthophyll Energy Transfer in the Monomeric Light-Harvesting Complex CP29”, *J. Phys. Chem. Lett.* **15**, 3149-3158 (2024).
- 574.V.Petropoulos, A. Mavridi-Printezi, A. Menichetti, D. Mordini, P. Kabacinski, N.C. Gianneschi, M. Montalti, M. Maiuri, and G. Cerullo, “Sub-50 fs Formation of Charge Transfer States Rules the Fate of Photoexcitations in Eumelanin-Like Materials”, *J. Phys. Chem. Lett.* **15**, 3639-3645 (2024).
- 575.M. Ruggeri, D. Wolverson, V. Romano, G. Cerullo, C. J. Sayers and G. D’Angelo, “Identification of soft modes across the commensurate-to-incommensurate charge density wave transition in 1T-TaSe₂”, *Phys. Rev. B* **110**, 165153 (2024).
- 576.S. Garcia-Orrit, V. Vega-Mayoral, Q. Chen, G. Serra, M. Guizzardi, V. Romano, S. Dal Conte, G. Cerullo, L. Di Mario, M. Kot, M.A. Loi, A. Narita, K. Müllen, M. Tommasini, and J. Cabanillas-González, “Visualizing Thermally Activated Conical Intersections Governing Non-Radiative Triplet Decay in a Ni(II) Porphyrin-Nanographene Conjugate with Variable Temperature Transient Absorption Spectroscopy”, *J. Phys.Chem. Lett.* **15**,10366-10374 (2024).
- 577.F. Vernuccio, E. Broggio, S. Sorrentino, A. Bresci, R. Junjuri, M. Ventura, R. Vanna, T. Bocklitz, M. Bregonzio, G. Cerullo, H. Rigneault and D. Polli, “Non-resonant background removal in broadband CARS microscopy using deep-learning algorithms”, *Sci Rep* **14**, 23903 (2024).
- 578.M. Russo, K. Georgiou, A. Genco, S. De Liberato, G. Cerullo, D. G. Lidzey, A. Othonos, M. Maiuri, T. Virgili, “Direct Evidence of Ultrafast Energy Delocalization Between Optically Hybridized J-Aggregates in a Strongly Coupled Microcavity” *Adv. Optical Mater.* **12**, 2400821 (2024).
- 579.C.J. Sayers, G. Marini, M. Calandra, H. Hedayat, X. Feng, E. van Heumen, C. Gadermaier, S. Dal Conte, G. Cerullo, “Anomalous Amplitude Mode Dynamics Below the Expected Charge-Density-Wave Transition in 1T-VSe₂”, *Adv. Phys. Res.* 2400114 (2024).
- 580.M. Hörmann, F.V.A. Camargo, N.F. van Hulst, G. Cerullo, and M. Liebel, “Ultrabroadband Optical Diffraction Tomography”, *ACS Photonics* **11**, 3680-3687 (2024).
- 581.L. Rieland, J. Wagner, R. Bernhardt, T. Wang, O. Abdul-Aziz, P. Stein, E.A.A. Pogna, S. Dal Conte, G. Cerullo, H. Hedayat, and P.H.M. van Loosdrecht, “Ultrafast Optical Control of

Exciton Diffusion in WSe₂/Graphene Heterostructures Revealed by Heterodyne Transient Grating Spectroscopy”, *Nano Lett.* **24**, 9824-9831 (2024).

- 582.R. Vanna, A. Masella, M. Bazzarelli, P. Ronchi, A. Lenferink, C. Tresoldi, C. Morasso, M. Bedoni, G. Cerullo, D. Polli, F. Ciceri, G. De Poli, M. Bregonzio, and C. Otto, “High-Resolution Raman Imaging of >300 Patient-Derived Cells from Nine Different Leukemia Subtypes: A Global Clustering Approach”, *Anal. Chem.* **96**, 9468-9477 (2024).
- 583.S. Berardi, E. Benazzi, E. Marchini, V. Cristino, R. Argazzi, R. Boaretto, T. Gobbato, F. Rigodanza, G. Cerullo, B. Bozzini, M. Bonchio, M. Prato, T. Berger, and S. Caramori, “Role of Intragap States in Sensitized Sb-Doped Tin Oxide Photoanodes for Solar Fuels Production”, *ACS Applied Materials & Interfaces* **16**, 27209-27223 (2024).
- 584.A. Shahu, V. Petropoulos, E. Saridakis, V.S. Petrakis, N. Ioannidis, G. Mitrikas, A. Schiza, C.L. Chochos, E.-M. Kasimati, A. Soultati, M.C. Nika, N.S. Thomaidis, M. Fakis, M. Maiuri, G. Cerullo, and G. Pistolis, “Aggregation-Driven Photoinduced α -C(sp³)-H Bond Hydroxylation/C(sp³)-C(sp³) Coupling of Boron Dipyrromethene Dye in Water Reported by Near-Infrared Emission”, *J. Am. Chem. Soc.* **146**, 15659-15665 (2024).
- 585.V. Tam, P. Picchetti, Y. Liu, A. Skripka, M. Carofiglio, G. Tamboia, A. Bresci, F. Manetti, G. Cerullo, D. Polli, L. De Cola, F. Vetrone, and M. Cerruti, “Upconverting Nanoparticles Coated with Light-Breakable Mesoporous Silica for NIR-Triggered Release of Hydrophobic Molecules”, *ACS Applied Materials & Interfaces* **16**, 29029-29041 (2024).
- 586.M. Hörmann, F. Visentin, S. Kumar Chakraborty, B. Nayak, P. Kumar Sahoo, G. Cerullo, and F.V.A. Camargo, "Self-referencing for quasi shot-noise-limited widefield transient microscopy," *Opt. Express* **32**, 21230-21242 (2024)
- 587.V. Kumar Jaiswal, D. Aranda Ruiz, V. Petropoulos, P. Kabaciński, F. Montorsi, L. Uboldi, S. Ugolini, S. Mukamel, G. Cerullo, M. Garavelli, F. Santoro and A. Nenov, “Sub-100-fs energy transfer in coenzyme NADH is a coherent process assisted by a charge-transfer state”, *Nat Commun* **15**, 4900 (2024).
- 588.P. Saraceno, S. Sardar, R. Caferri, F.V.A. Camargo, L. Dall’Osto, C. D’Andrea, R. Bassi, L. Cupellini, G. Cerullo, and B Mennucci, “Probing the Effect of Mutations on Light Harvesting in CP29 by Transient Absorption and First-Principles Simulations”, *J. Phys. Chem. Lett.* **15**, 6398-6408 (2024).
- 589.G. Antonacci, R. Vanna, M. Ventura, M.L. Schiavone, C. Sobacchi, M. Behrouzitabar, D. Polli, C. Manzoni and G. Cerullo, “Birefringence-induced phase delay enables Brillouin mechanical imaging in turbid media”, *Nat Commun* **15**, 5202 (2024).
- 590.D. Timmer, M. Gittinger, T. Quenzel, A.R. Cadore, B.L.T. Rosa, W. Li, G. Soavi, D.C. Lünemann, S. Stephan, M. Silies, T. Schulz, A. Steinhoff, F. Jahnke, G. Cerullo, A.C. Ferrari, A. De Sio and C. Lienau, “Ultrafast Coherent Exciton Couplings and Many-Body Interactions in Monolayer WS₂”, *Nano Lett* **24**, 8117-8125 (2024).
- 591.C. Trovatello, A. Marini, M. Cotrufo, A. Alù, P.J. Schuck, and G. Cerullo, “Tunable Optical Nonlinearities in Layered Materials”, *ACS Photonics* **11**, 2860-2873 (2024).

- 592.A. Bresci, K.J. Kobayashi-Kirschvink, G. Cerullo, R. Vanna, P.T.C. So, D. Polli and J.W. Kang, “Label-free morpho-molecular phenotyping of living cancer cells by combined Raman spectroscopy and phase tomography”, *Commun Biol* **7**, 785 (2024).
- 593.C.J. Sayers and G. Cerullo, “Structural dynamics LEEDS the way”, *Nat. Mater.* **23**, 870–871 (2024).
- 594.G. Crotti, M. Akturk, A. Schirato, V. Vinel, A.A. Trifonov, I.C. Buchvarov, D.N. Neshev, R. Proietti Zaccaria, P. Laporta, A. Lemaître, G. Leo, G. Cerullo, M. Maiuri and G. Della Valle, “Giant ultrafast dichroism and birefringence with active nonlocal metasurfaces”, *Light Sci Appl* **13**, 204 (2024).
- 595.A. Milloch, U. Filippi, P. Franceschini, S. Mor, S. Pagliara, G. Ferrini, F.V.A. Camargo, G. Cerullo, D. Baranov, L. Manna, and C. Giannetti, “Fate of Optical Excitons in FAPbI₃ Nanocube Superlattices”, *ACS Photonics* **11**, 3511-3520 (2024).
- 596.A. Iudica, S. Rotta Loria, C. Mancarella, L. Mascaretti, A. Naldoni, G. Cerullo, A. Li Bassi, M. Zavelani-Rossi, “Real-Time Detection of Coherent Vibrational Dynamics in TiN Films”, *Adv. Optical Mater.* **12**, 2401390 (2024).
- 597.P. Nicolussi, G. Pilo, M. G. Cancedda, G. Peng, N. D. Q. Chau, A. De la Cadena, R. Vanna, Y. A. Samad, T. Ahmed, J. Marcellino, G. Tedde, L. Giro, A. Ylmazer, F. Loi, G. Carta, L. Secchi, S. Dei Giudici, S. Macciocu, D. Polli, Y. Nishina, C. Ligios, G. Cerullo, A. Ferrari, A. Bianco, B. Fadeel, G. Franzoni, L. G. Delogu, “Biocompatibility of Water-Dispersible Pristine Graphene and Graphene Oxide Using a Close-to-Human Animal Model: A Pilot Study on Swine”, *Adv. Healthcare Mater.* 2401783 (2024).
- 598.C. Gruber, J. Pupeikis, S.L. Camenzind, B. Willenberg, F.V.A. Camargo, L. Lang, P. Hamm, A. Rampur, A. Heidt, C.R. Phillips, G. Cerullo, and U. Keller, "High-sensitivity pump-probe spectroscopy with a dual-comb laser and a PM-Andi supercontinuum," *Opt. Lett.* **49**, 6445-6448 (2024)
- 599.J. Wagner, R. Bernhardt, L. Rieland, O. Abdul-Aziz, Q. Li, X. Zhu, S. Dal Conte, G. Cerullo, P. H. M. van Loosdrecht, H. Hedayat, “Unveiling Ultrafast Spin-Valley Dynamics and Phonon-Mediated Charge Transfer in MoSe₂/WSe₂ Heterostructures”, *Adv. Optical Mater.* 2402703 (2024).
- 600.F. Richter, U. Saalmann, E. Allaria *et al.*, “Strong-field quantum control in the extreme ultraviolet domain using pulse shaping”, *Nature* **636**, 337–341 (2024).
- 601.C. J. Sayers, Y. Zhang, C. E. Sanders, R. T. Chapman, A. S. Wyatt, G. Chatterjee, E. Springate, G. Cerullo, D. Wolverson, E. Da Como and E. Carpene, “Mapping the nonequilibrium order parameter of a quasi-two dimensional charge density wave system”, *Commun Phys* **7**, 389 (2024).
- 602.V. Petropoulos, L. Martinez-Fernandez, L. Uboldi, M. Maiuri, G. Cerullo, E. Balanikas, and D. Markovitsi, "Factors Affecting the Population of Excited Charge Transfer States in Adenine/Guanine Dinucleotides: A Joint Computational and Transient Absorption Study" *Biomolecules* **14**, 1548 (2024).

- 603.D. Timmer, D.C. Lünemann, M. Gittinger, A. De Sio, C. Manzoni, G. Cerullo, and C. Lienau, "Phase-cycling and double-quantum two-dimensional electronic spectroscopy using a common-path birefringent interferometer," *Optica* **11**, 1646-1653 (2024).
- 604.F. Faini, Y. Asensio, F. Visentin, L. Olano-Vegas, M. Hörmann, L.E. Hueso, G. Cerullo, F.V. A. Camargo, B. Martín-García, and G. Grancini, "Imaging Ultrafast Charge Transfer at Low-Dimensional Lead Halide Perovskite Heterostructures", *ACS Energy Lett.*, in press (2025).
- 605.B.S. Kariman, A. Nardini, M. Marini, P. Roldán-Varona, C. Conci, M.T. Raimondi, R. Osellame, G. Cerullo, G. Chirico, and R. Martínez Vázquez, "High dioptric power micro-lenses fabricated by two-photon polymerization," *Opt. Express* **32**, 48114-48131 (2024).
- 606.Vasilis Petropoulos, Dario Mordini, Francesco Montorsi, Mert Akturk, Arianna Menichetti, Andrea Olivati, Annamaria Petrozza, Vittorio Morandi, Margherita Maiuri, Nathan C. Gianneschi, Marco Garavelli, Luca Valgimigli, Giulio Cerullo, and Marco Montalti "Photochemical pathways and light-enhanced radical scavenging activity of 1,8-dihydroxynaphthalene allomelanin". *Journal of the American Chemical Society* **147** (12), 11855–11868 (2025). <https://doi.org/10.1021/jacs.5c01855>
- 607.Chiera Martinelli, Alberto Bocconi, Sofia Milone, Teresa Baldissera, Leonardo Cherubin, Giovanni Buccioli, Simone Perotoni, Claudio Conci, Giulio Cerullo, Roberto Osellame, Giuseppe Chirico, Emanuela Jacchetti & Manuela Teresa Raimondi. A 3D millifluidic model of a dermal perivascular microenvironment on a chip. *Lab on a Chip* **25**, 423–439 (2025). <https://doi.org/10.1039/d4lc00898g>
- 608.Shira Gigi, Tal Cohen, Diego Florio, Adar Levi, David Stone, Ofer Katoa, Junying Li, Jing Liu, Sergei Remennik, Franco V. A. Camargo, Giulio Cerullo, Anatoly I. Frenkel & Uri Banin. Photocatalytic Semiconductor–Metal Hybrid Nanoparticles: Single-Atom Catalyst Regime Surpasses Metal Tips. *ACS Nano* **19** (1), 1–14 (2025). <https://doi.org/10.1021/acsnano.4c13603>
- 609.Cristina Cruciano, Davide Rocco, Armando Genco, Andrea Tognazzi, Andrea Locatelli, Luca Carletti, Alexey Fedorov, Chiara Trovatello, Giuseppe Di Blasio, Ilaria Bargigia, Charalambos Louca, Paolo Gubian, Giulio Tavani, Luca Lovisolo, Artur Tuktamyshev, Lucio C. Andreani, Matteo Galli, Giulio Cerullo, Giuseppe Leo, Stefano Sanguinetti, Costantino De Angelis & Monica Bollani. Shaping the Emission Directivity of Single Quantum Dots in Dielectric Nanodisks Exploiting Mie Resonances. *ACS Nano* **19** (3), 3500–3509 (2025). <https://doi.org/10.1021/acsnano.4c13327>
- 610.Charles J. Sayers, Giovanni Marini, Matteo Calandra, Hamoon Hedayat, Xuanbo Feng, Erik van Heumen, Christoph Gadermaier, Stefano Dal Conte & Giulio Cerullo. Anomalous amplitude mode dynamics below the expected charge-density-wave transition in 1T-VSe₂. *Advanced Physics Research* **4** (2), 202400114 (2025). <https://doi.org/10.1002/apxr.202400114>
- 611.Eelco K. Tekelenburg, Larissa J. M. van de Ven, Matteo Pitaro, Alessio Filippetti, Alessandro Mattoni, Franco V. A. Camargo, Giulio Cerullo & Maria A. Loi. Mechanism of Hot-Carrier

Photoluminescence in Sn-Based Perovskites. *Advanced Materials* **36** (51), 25041892 (2024).
<https://doi.org/10.1002/adma.202411892>

612. Nikolas Antonatos, Artur P. Herman, Beatriz de Simoni, Karolina Ciesiolkiewicz, Eduard Belas, Marián Betušiak, Roman Grill, Kalyan Jyoti Sarkar, Amutha Subramani, David Sedmidubský, Valentino Jadriško, Alessandro Baserga, Micol Bertolotti, Stefano Dal Conte, Christoph Gadermaier, Giulio Cerullo, Antonella Treglia, Annamaria Petrozza, Robert Kudrawiec & Zdeněk Sofer. Unraveling the nanosecond photoresponse of layered HgPSe₃. *Nano Letters* **25** (4), 30162–30173 (2025). <https://doi.org/10.1021/acs.nanolett.4c04945>
613. Chiara Trovatello, Carino Ferrante, Birui Yang, Josip Bajo, Benjamin Braun, Zhi Hao Peng, Xinyi Xu, Philipp K. Jenke, Andrew Ye, Milan Delor, D. N. Basov, Jiwoong Park, Philip Walther, Cory R. Dean, Lee A. Rozema, Andrea Marini, Giulio Cerullo & P. James Schuck. Quasi-phase-matched up- and down-conversion in periodically poled layered semiconductors. *Nature Photonics* **19**, 291–299 (2025). <https://doi.org/10.1038/s41566-024-01602-z>
614. Benedetto Ardini, Lucia Pittura, Andrea Frontini, Maura Benedetti, Stefania Gorbi, Francesco Regoli, Giulio Cerullo, Gianluca Valentini & Cristian Manzoni. Fast Detection and Classification of Microplastics by a Wide-Field Fourier Transform Raman Microscope. *Environmental Science & Technology* **59** (18), 12456–12465 (2025). <https://doi.org/10.1021/acs.est.5c00165>
615. Armando Genco, Chiara Trovatello, Vanik A. Shahnazaryan, Oleg Dogadov, Alisson R. Cadore, Barbara L. T. Rosa, James A. Kerfoot, Tanweer Ahmed, Osman Balci, Evgeny M. Alexeev, Habib Rostami, Kenji Watanabe, Takashi Taniguchi, Seth Ariel Tongay, Andrea C. Ferrari, Giulio Cerullo & Stefano Dal Conte. Ultrafast Dynamics of Rydberg Excitons and Their Optically Induced Charged Complexes in Encapsulated WSe₂ Monolayers. *Nano Letters* **25** (19), 7673–7681 (2025). <https://doi.org/10.1021/acs.nanolett.4c06428>
616. Fedele Pisani, Gabriele Di Noia, Francesco Crisafi, Matteo Negro, Giulio Cerullo & G. Galzerano. SESAM mode-locked Nd: fiber laser at 920 nm for coherent Raman microscopy. *Optics Express* **33** (10), 20399–20410 (2025). <https://doi.org/10.1364/OE.557820>
617. Rafael Muñoz-Mármol, Saurav Raj, Mattia Russo, Gianluca Serra, Hao Zhao, Giacomo Bassi, Andrea Lucotti, Francesco Scotognella, Giulio Cerullo, Guglielmo Lanzani, Matteo Maria Saverio Tommasini, Margherita Maiuri, Akimitsu Narita & Giuseppe Maria Paternò. Time-Domain Visualization of Electron-Phonon Coupling in Nanographenes. *Small Methods* **9**, 2500419 (2025). <https://doi.org/10.1002/smtd.202500419>
618. Yang Luo, Shaoxiang Sheng, Andrea Schirato, Alberto Martin-Jiménez, Giuseppe Della Valle, Giulio Cerullo, Klaus Kern & Manish Garg. Visualizing hot carrier dynamics by nonlinear optical spectroscopy at the atomic length scale. *Nature Communications* **16**, 4999 (2025). <https://doi.org/10.1038/s41467-025-60384-2>
619. Luca Oberti, Lorenzo Avaldi, Paolo Bolognesi, Marco Bonanomi, Rocío Borrego-Varillas, Carla Callegari, Luca Carlini, Jorge Chiarinelli, Emilio Ciekalski, Mauro Coreno, Maria Devetta, Marco Di Fraia, Marco Garavelli, Michael Goffe, Claudia Grazioli, Federico

- Montorsi, K. C. Prince, Ralf Richter, Francesco Segatta, Stefan Waldmannstetter, Giulio Cerullo, Hugo Dube, Ondřej Plekan, Daniele Faccialà, and Cristina Vozzi. Characterization of the hemithioindigo photoswitch and its derivatives with x-ray photoabsorption and photoemission spectroscopies. *The Journal of Chemical Physics* **162** (24), 244202 (2025). <https://doi.org/10.1063/5.0271164>
620. Issam Belgacem, Pasquale Cilibrizzi, Muhammad Junaid Arshad, Daniel White, Malte Kroj, Christiaan Bekker, Margherita Mazzera, Brian D. Gerardot, Angelo C. Frangeskou, Gavin W. Morley, Nguyen Tien Son, Jawad Ul-Hassan, Takeshi Ohshima, Hiroshi Abe, Lorenzo Vinco, Dario Polli, Giulio Cerullo & Cristian Bonato. Broadband Fourier transform spectroscopy of quantum emitters photoluminescence with sub-nanosecond temporal resolution. *Optica Quantum* **3** (4), 335–345 (2025). <https://doi.org/10.1364/OpticaQ.572789>
621. Marco Astarita, Alessandro Cerioni, Andrea Bassi, Matteo Ziliani, Anna Cesaratto, Tommaso Ongarello, Giulio Cerullo, Gianluca Valentini & Paolo Pozzi. Wireframe holography as a method for augmented reality projections. *Optics Express* **33** (14), 30162–30173 (2025). <https://doi.org/10.1364/OE.487531>
622. Armando Genco, Charalambos Louca, Cristina Cruciano, Kok W. Song, Chiara Trovatello, Giuseppe Di Blasio, Giacomo Sansone, Sam A. Randerson, Peter Claronino, Kyriacos Georgiou, Rahul Jayaprakash, Kenji Watanabe, Takashi Taniguchi, David G. Lidzey, Oleksandr Kyriienko, Stefano Dal Conte, Alexander I. Tartakovskii & Giulio Cerullo. Femtosecond switching of strong light-matter interactions in microcavities with two-dimensional semiconductors. *Nature Communications* **16**, 6490 (2025). <https://doi.org/10.1038/s41467-025-61607-2>
623. Ana Maria de Paula, Shunran Li, Bowen Hou, Srikrishnaa Vadivel, Danielle C. Teles-Ferreira, Andrea Iudica, Piotr Kabaciński, Hemen Hosseini, Jack McArthur, Giulio Cerullo, Diana Y. Qiu, Peijun Guo & Franco V. A. Camargo. Time-Domain Observation of Ultrafast Self-Trapped Exciton Formation in Lead-Free Double Halide Perovskites. *Journal of the American Chemical Society* **147** (32), 28923–28931 (2025). <https://doi.org/10.1021/jacs.5c06628>
624. Thomas Deckert, Henry Mittenzwey, Oleg Dogadov, Micol Bertolotti, Giulio Cerullo, Daniele Brida, Andreas Knorr & Stefano Dal Conte. Coherent Coulomb Intra- and Intervalley Many-Body Effects in Single-Layer Transition Metal Dichalcogenides. *Physical Review Letters* **135**, 066902 (2025). <https://doi.org/10.1103/10.1103/j5cv-rffq>
625. Valentino Romano, Martin Hörmann, Anna Stadlbauer, Edoardo Mosconi, Luca Gregori, Filippo De Angelis, Felix Deschler, Giulio Cerullo & Franco V. A. Camargo. Cation Tuning of Polaron Barriers in Layered Perovskites for Optical Spin Lifetime Control. *ACS Energy Letters* **10** (9), 4636–4643 (2025). <https://doi.org/10.1021/acsenergylett.5c01236>
626. Chiara Martinelli, Srijan Chakraborty, Giovanni Buccioli, Matteo Vicini, Claudio Conci, Giulio Cerullo, Roberto Osellame, Giuseppe Chirico, Emanuela Jacchetti & Manuela Teresa Raimondi. Engineering macrophage responses through 3D scaffold microarchitecture. *Materials Today Bio* **32**, 102328 (2025). <https://doi.org/10.1016/j.mtbio.2025.102328>

627. Diego Florio, Adar Levi, Bokang Hou, Einav Scharf, Martin Hörmann, Eran Rabani, Giulio Cerullo, Uri Banin & Franco V. A. Camargo. Charged- and multi-exciton dynamics in colloidal quantum dot molecules. *Nano Letters* **25**, 14542–14549 (2025). <https://doi.org/10.1021/acs.nanolett.5c03224>
628. Raúl Álvarez-Mendoza, Lorenzo Uboldi, Ashley Lyons, Richard J. Cogdell, Giulio Cerullo & Daniele Faccio. Correlated-photon time- and frequency-resolved optical spectroscopy. *Nature Communications* **16**, 8634 (2025). <https://doi.org/10.1038/s41467-025-63830-3>
629. Matteo Corti, Fabrizio Preda, Antonio Perri, Ondřej Ballada, Čestmír Barta, Lukáš Chroust, Davide Gatti, Guglielmo Vesco, Luca Moretti, Gianluca Valentini, Giulio Cerullo & Cristian Manzoni. A thermal infrared hyperspectral camera based on a birefringent interferometer. *APL Photonics* **10**, 101302 (2025). <https://doi.org/10.1063/5.0231702>
630. Edoardo Lopriore, Charalambos Louca, Armando Genco, Irantzu Landa, Daniel Erkensten, Charles J. Sayers, Samuel Brem, Raúl Perea-Causin, Kenji Watanabe, Takashi Taniguchi, Christoph Gadermaier, Ermin Malic, Giulio Cerullo, Stefano Dal Conte & Andras Kis. Electrically tunable ultrafast dynamics and interactions of hybrid excitons in a 2D semiconductor bilayer. *Nature Communications* **16**, 65733 (2025). <https://doi.org/10.1038/s41467-025-65733-9>
631. F. Hempel, M. Rüsing, F. Vernuccio, K. J. Spychala, R. Buschbeck, G. Cerullo, D. Polli & L. M. Eng. Phonon dephasing times determined with time-delayed broadband coherent anti-Stokes Raman scattering. *Physical Review B* **112**, 224106 (2025). <https://doi.org/10.1103/1ctr-csjy>
632. Omar Abdul-Aziz, Manuel Tuniz, Wibke Bronsch, Fulvio Parmigiani, Federico Cilento, Daniel Wolverson, Charles J. Sayers, Giulio Cerullo, Claudia Dallera, Ettore Carpena, Paul H. M. van Loosdrecht & Hamoon Hedayat. Photoinduced electronic band dynamics and defect-mediated surface potential evolution in PdSe₂. *npj 2D Materials and Applications* **9**, 110 (2025). <https://doi.org/10.1038/s41699-025-00629-2>
633. Hiltunen V-M, Matheou M, Rossi A, Conran B R, Teo K B K, Dal Conte S, Genco A, Cerullo G, Forti S & Coletti C, “Aluminum-rich reconstructed sapphire as a high-quality substrate for tungsten disulfide synthesis”, *Nanoscale* **18**, 281–290 (2026). <https://doi.org/10.1039/D5NR03765D>
634. Samim Sardar, Mattia Russo, Ariel García Fleitas, Franco V. A. Camargo, Margherita Maiuri, Cosimo D’Andrea & Giulio Cerullo. Revealing molecular mechanisms of photosynthetic light harvesting with ultrafast optical spectroscopy. *Journal of Physics: Photonics* **6**, 012002 (2025). <https://doi.org/10.1088/2515-7647/ae28a2>
635. Federico Midena, Laura Alessandrini, Claudio Conci, Matteo Barcella, Francesco Gazzo, Emanuela Jacchetti, Edoardo Carsana, Fabrizio Benedicenti, Roberta Vacca, Lucrezia della Volpe, Sergio Arévalo, Kety Giannetti, Dafne Barozzi, Martina Franchino, Erika Zonari, Francesca Ferrua, Giacomo Farina, Chiara Brombin, Federica Cugnata, Martina Fiumara, Teresa Tavella, Leonardo Cherubin, Federico Fraschetta, Giulio Cerullo, Roberto Osellame,

Marina Radrizzani, Samuele Ferrari, Ivan Merelli, Bernhard Gentner, Cristina Scielzo, Andrea Brendolan, Luigi Naldini, Alessandro Aiuti, Eugenio Montini, Manuela T. Raimondi & Raffaella Di Micco, “Nanoengineered 3D culture substrate enables superior persistence and polyclonal engraftment of genetically engineered hematopoietic stem cells”, *Cell Stem Cell* **32**, 1–14 (2025). <https://doi.org/10.1016/j.stem.2025.12.016>

636.Montanaro A, Valiera F, Giusti F, Fassioli F, Trovatiello C, Jarc G, Rigoni E M, Liu F, Zhu X, Dal Conte S, Cerullo G, Eckstein M & Fausti D, “Tracking the photoinduced dynamics of a dark excitonic state in single-layer WS₂ via resonant Autler–Townes splitting”, *Phys. Rev. Lett.* **136** 016902 (2026). <https://doi.org/10.1103/PhysRevLett.136.016902>

637.Dogadov O, Pan G A, Villa A, Segedin D F, Marsik P, Brooks C M, Paik H, Qi S, Russo V, Casari C S, Mundy J A, Cerullo G & Dal Conte S, “Ultrafast modification of coherent phonons during the photoinduced insulator-to-metal phase transition in neodymium nickelate”, *Phys. Rev. B* **113**, 014304 (2026).. <https://doi.org/10.1103/PhysRevB.113.014304>

638.Gucci F, Molinero E B, Russo M, San-Jose P, Camargo F V A, Maiuri M, Ivanov M, Jiménez-Galán Á, Silva R E F, Dal Conte S & Cerullo G, “Encoding and manipulating ultrafast coherent valleytronic information with lightwaves”, *Nat. Photon.* **20**, 1–9 (2026). <https://doi.org/10.1038/s41566-025-01823-w>

639.Timmer, D., Gittinger, M., Quenzel, T., Cadore, A. R., Rosa, B. L. T., Li, W., Soavi, G., Lünemann, D. C., Stephan, S., Greten, L., Richter, M., Knorr, A., De Sio, A., Silies, M., Cerullo, G., Ferrari, A. C. & Lienau, C. “Ultrafast transition from coherent to incoherent polariton nonlinearities in a hybrid 1L-WS₂/plasmon structure” *Nat. Nanotechnol.* **21**, 1–8 (2026). <https://doi.org/10.1038/s41565-025-02054-4>

640.