

Curriculum vitae di **Miriam Serena Vitiello**

Sottosettori ERC primari (max 3): *PE3_10; PE7_5; PE7_4*

PERSONAL DETAILS

Biographical data: Birth date and place: 21/06/1978, Policoro (MT) Italy; Nationality: Italian. e-mail: miriamserena.vitiello@cnr.it; Phone: +39 3389042612; website: <https://thz-photonics.nano.cnr.it/>

Education and key qualifications

10/2014: Qualification as Full Professor in Experimental Physics of the Matter.

03/2006: Ph.D. degree in Physics – Univ. of Bari, (Italy) "THz and mid-IR QCLs and light emitting devices: design, fabrication, and study of the optical, electronic, and lattice properties".

12/2001: "Laurea" Degree in Physics – University of Bari (110/110 *Summa cum laude*).

Current position

2017 – present: Director of Research National Research Council (CNR) - Nanoscience Institute.

2015 – present: Adjunct Professor of Condensed Matter Physics - Scuola Normale Superiore (Pisa).

Previous positions

2010-2017: Permanent Researcher National Research Council (CNR) - Nanoscience Institute.

10/2008 – 01/2010: Tenure Track Researcher, CNR-National Institute of Photonics and Nanotechnology, Bari.

12/2006 – 10/2008 Research Assistant Associate, University of Bari (Italy).

01/2006 – 12/2006 Post Doctoral Fellow - CNR/National Institute for the Physics of the Matter, Bari (Italy)

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

Research achievements

Selection of 20 research outputs. In all cases I am the leading author that conceived the invention and coordinated the team; **Ref.16** is a review paper notifying my role of inventor of THz graphene detectors.

1. A. Di Gaspere, S. Ghayeb-Zamharir, L. Li, E. H. Linfield, A. G Davies, J. Zhang, O. Balci, A. C Ferrari, M. S Vitiello, *Nature Nanotechnology* 1-7 (2025).

2. L. Viti, C. Schiattarella, L. Sichert, Z.Wang, S. Law, O. Mitrofanov, M. S Vitiello, *Light: Science & Appl.* 14, 288 (2025).

3. A. Di Gaspere, S. Ghayeb Zamharir, C. Knox, A. Yagmur, S. Sasaki, M. Salih, L. Li, E. H Linfield, J. Freeman, M.S Vitiello, *Light: Science & Appl.* 14, 337 (2025).

4. A Di Gaspere, C Song, C Schiattarella, LH Li, M Salih, A Giles Davies, E. H Linfield, J. Zhang, O. Balci, A. C Ferrari, S. Dhillon, M. S Vitiello *Nature Communications* 15, 2312, (2024) .

5. E.AA Pogna, V. Pistore, L. Viti, L. Li, A. G. Davies, E.H. Linfield, M. S Vitiello *Nature Communications* 15, 2373 (2024).

6. E Riccardi, V Pistore, S Kang, L Seitner, A De Vetter, C Jirauschek, J Mangeney, L Li, A Giles Davies, EH Linfield, AC Ferrari, S S Dhillon, MS Vitiello *Nature Photonics* 17, 607–614 (2023).

7. EAA Pogna, L Viti, A Politano, M Brambilla, G Scamarcio, MS Vitiello, *Nature Comm*, 12, 6672 (2021).

8. J. Raab, F. P. Mezzapesa, L. Viti, N. Dessmann, L. K. Diebel, L. Li, A. G. Davies, E.H. Linfield, C. Lange, R. Huber & M. S. Vitiello *Nature Communications* 11, 4290 (2020).

9. L Viti, DG Purdie, A Lombardo, AC Ferrari, MS Vitiello, HBN-encapsulated, graphene-based, room-temperature terahertz receivers, with high speed and low noise *Nano Letters* 20, 3169-3177 (2020).

10. S Biasco, HE Beere, DA Ritchie, L Li, A Giles Davies, EH Linfield, MS Vitiello, *Light: Science & Applications* 8, 43 (2019).

11. S Biasco, K. Garrasi, F. Castellano, L. Li, DA Ritchie, L Li, A Giles Davies, EH Linfield, MS Vitiello, *Nat. Commun* 9, 1122 (2018).

12. M.A. Huber, F. Mooshammer, M. Plankl, L. Viti, F. Sandner, L.Z. Kastner, T. Frank, J. Fabian, M.S. Vitiello, T.L. Cocker & R. Huber, *Nat. Nanotechnology* 12(3): 207 (2017).

13. V. Bianchi, T. Carey, L. Viti, L. Li, E.H. Linfield, A.G. Davies, A. Tredicucci, D. Yoon, L. Lombardi, F. Tomarchio, A.C. Ferrari, F. Torrisi & M.S. Vitiello *Nat. Communications* 8, 15763 (2017).

14. L. Viti, D. Coquillat, A. Politano, K.A. Kokh, Z.S. Aliev, M.B. Babanly, O.E. Tereshchenko, W. Knap, E.V. Chulkov, M.S. Vitiello, *Nano Letters* 16, 80-87, (2016).

15. L. Viti, J. Hu, D. Coquillat, W. Knap, A. Tredicucci, A. Politano and M.S. Vitiello *Advanced Materials* 27, 5567–5572, (2015).

16. F.H.L. Koppens, T. Mueller, Ph. Avouris, A.C. Ferrari, M.S. Vitiello, and M. Polini *Nature Nanotechnology*. 9, 780 (2014).

17. M.S. Vitiello, M. Nobile, A. Ronzani, A. Tredicucci, F.Castellano, V. Talora, L.Li, E.H. Linfield, A.G. Davies, *Nature Communications* 5, 5884 (2014).

18. M. Eisele, T. L Cocker, M. A Huber, M. Plankl, L Viti, D Ercolani, L Sorba, M. S Vitiello, R. Huber *Nature Photonics* 8, 841 (2014).

19. M. S Vitiello, L. Consolino, S. Bartalini, A. Taschin, A. Tredicucci, M. Inguscio, P. De Natale, *Nature Photonics* 6, 525 (2012).

20. L. Vicarelli, M.S Vitiello, D Coquillat, A. Lombardo, A. C. Ferrari, W Knap, M Polini, V Pellegrini, A.Tredicucci *Nature Materials* 11, 865 (2012).

Key achievements and short explanation of the significance of the selected outputs: in the last years, as a team leader, I reached important milestones in the field of light-matter interaction phenomena, two-dimensional nano-materials (graphene, phosphorene, van der Waals heterostructures, topological insulators), micro and nano systems, nano-photonics, quantum optics, far-infrared photonics and optoelectronics devices: - 2012: Invention of nanowire- FETs THz detectors (*Nano Lett.* 2012) - 2012: Invention of *graphene-based* THz detectors (**Ref.16** and **Ref.20**) - 2012: Development of: i) novel techniques for quantum noise and intrinsic linewidth studies in THz QCLs (**Ref.19**); ii) Phase-locking techniques for THz QCLs via free-space OFCS (*Nature Comm.* 2012) - 2014: Invention of quasi-crystal THz lasers (**Ref.17**) - 2014: Demonstration of coherent perfect absorption of photons (*Nature Physics* 2014). - 2015-2016: Invention of black phosphorus and vdW heterostructure THz photodetectors a (**Ref.15** and *Advanced Mat* 2016, *Scientific Reports* 2016). - 2016: Invention of active THz devices exploiting topological insulators (**Ref.14**) - 2017: Invention of ultrafast optical switches for THz waves (**Ref.12**) - 2017: Invention of ink-jet printed THz saturable absorbers (**Ref.13**) - 2018-2024: Invention of a THz detectorless scattering near field optical microscope (*Optics Express* 2018) and demonstration of the propagation of: i) THz plasmon polaritons in TIs (**Ref.5**, **Ref.2** and *Advanced Mat.* 2023, *Small* 2024); ii) anisotropic THz plasmon polaritons in black phosphorus (**Ref.7**) - 2018: Invention of a THz wire laser with record optical performances (**Ref.11**) - 2018, 2023 Invention of THz QCL frequency combs with record dynamic range and development of metrological-grade miniaturized combs (*ACS Phot.* 2018, *Laser&Phot Rev.* 2023) - 2019: Invention of the first THz random laser operating in continuous wave (**Ref.10**) and of the THz one dimensional quasi crystal record efficiency QCLs (*Light Science and Appl.* 2019) - 2020: Invention ultrafast saturable absorbers based on intersubband polaritons (**Ref.8**) and ultrafast room-temp. THz detectors (**Ref.9**) - 2021: Millimeter wave generation in QCLs (*Nature Comm.* 2021) - 2021: Invention of the first detectorless near-field, frequency comb THz nanoscope (*Adv. Science* 2021) - 2023: Invention of the first passively mode-locked quantum cascade laser (**Ref. 6**) - 2024-25: Third harmonic generation in graphene nanoresonators (**Ref. 4**) and in TI metamaterials (**Ref. 3**) - 2025 First QCL in the Reststrahlen band (**Ref.1**) (I co-authored two roadmaps on THz science and technology: 2017 (1870 citations), 2023 (603 citations)).

Scientific production (ISI-ranked journals): In 20 years of academic activity, I co-authored **360** peer-reviewed publications (including peer-reviewed international proceedings amongst which > 180 articles in international journals (Scopus with over 15.000 citations **h-index: 53**; google scholar: 18695 citations; **h-index: 58**).

Peer recognitions

Awards and Prizes

- 09/2025 **Athena Ilias Award 2025** “For her exceptional scientific contributions as a woman in science”
- 01/2025 **SPIE Innovation Award 2025** “For her exceptional scientific contributions, educational efforts, and service to the community.”
- 09/2020: **Friedel Volterra Medal 2020** (Italian Physical Society and Société Française de Physique) “For her important experimental research in the field of light-matter interaction phenomena, two-dimensional nano-materials, micro and nano systems, nano- photonics, quantum optics, far-infrared photonics. In particular, for the development of innovative devices in the terahertz frequency range”
- 11/2018: **Pio XI Medal** (for outstanding contributions in THz nanophotonics)- Pontificia Academy of Science
- 05/2018: **Innovation Award Sapio** (for her leadership in THz photonics) - Senate of the Italian Republic
- 10/2016: **37° International Prize Guido Dorso** – Research - Senate of the Italian Republic
- 2015: "Early Career Achievement Award"- SPIE, International Society for Optics and Photonics: for the "outstanding results in research on semiconductor laser sources and electronic high frequency nanodetectors which have opened new frontiers in the Terahertz photonics and optoelectronics fields".
- 08/2013: Heraclea Award: “for her outstanding leadership in the research of terahertz devices”
- 09/2012: "**Premio Sergio Panizza**" - Italian Physical Society – Optoelectronic and Photonic Scientist Award
- 09/2005: "International Excellence Scientific Authors Award" (ITQW 2005), Cape Code (USA).
- 06/2005: "Young Scientist Award 2005" International Conference on Matter Materials and Devices, Italy

ERC Research Grants 1. **ERC Consolidator Grant** 2016– “Sprint” Ultra-short Pulse Laser Resonators in the Terahertz (2016-2023) 2. **ERC Proof of Concept** - “Star” Hyperspectral THz near-field nanoscope exploiting miniaturized frequency-combs (2022-2024). 3. 2024: **ERC proof of Concept** – “Terascan” Terahertz Hyperspectral low-cost fast Graphene Camera (2024-2026). 4. 2026-2027: **ERC proof of Concept** CLEAR “Chip scale THz dual-comb system” 5. **ERC Advanced Grant** NODE “Nanoengineering cutting-edge micro-devices in the far-infrared through advanced material embedding”

Running and past research grants (last 10 years): 1. H2020-FETOPEN-2018-2020-RIA – “Extreme IR” (2021-2025), *CNR principal investigator (PI)* 2. HORIZON-CL4-2021-DIGITAL-EMERGING-01 – “Muquabis” Multiscale quantum bioimaging and spectroscopy (2022-2027); 3. Balzan Research Project

Template CV Soci Accademia di Ingegneria e Tecnologia

“Optoelectronics and nano-photonics in two-dimensional nanomaterial heterostructures”, *PI*. (2022-2026); **4.** European Union Innovative Training Networks (ITN) H2020-MSCA-ITN-2017 – “TeraApp” - Doctoral Training Network in Terahertz Technologies for Imaging, Radar and Communication Applications; **5.** H2020-FETOPEN-1-2016-2017-RIA – “MIR-BOSE” *CNR (PI)*; **6.** H2020-FETOPEN-2014-2015-RIA – “UltraQCL” - *beneficiary CNR PI*; **7.** EU Graphene Flagship *Coordinator and Deputy Leader “Terahertz Photonics”*; **8.** PNNR-National Quantum Science & Technology Institute (NQSTI), *Coordinator WP 4.4*; **9.** PNNR - Research and innovation on future Telecommunications systems and networks, to make Italy more smart (RESTART), spoke 3 - *scientific coordinator Projects S8 and F5*. **10.** Starting Grant FIRB Futuro in Ricerca 2010 “Fundamental research on THz Photonic Devices” – Ministry of Education, University and Research – *PI*. **11.** FAR-FAS 2014 - Regione Toscana – DIAST “Diagnostic tools for space science applications” – *PI*. **12.** National Call FAR-FAS 2014 - Regione Toscana – SCIADRO “Swarm of Drones: THz diagnostics” – *PI*.

Tutorial, Keynote and Invited Talks at International Conferences I delivered >**130 invited talks** including *plenary talks* (Selection: **1.-6.**IRMMW THz 2018, RESTART 2024, ICTON 2024, 2dnano 2023, 11th IEEE International Conference on Solid Dielectrics 2013, SinoLight 2024) *keynotes* (**7.-25.** SPIE Photonics West 2026, 2025, 2024, 2019, 2018, 2016, 2015, EOSAM 2023, IRMMW 2025 2023, 2022, 2016, 2015, 2006, OTST 2015, IQCLSW 2022, IQCLSW 2016) tutorial Talks (**26,27.** Cleo 2021, 2025), **28.** TeraNano V, 2014, **29.** International Conference Advanced Photonics – “Optical Sensors” OSA, 2014; **30.** 16th International Conference “Laser Optics 2014”, **31-36.** Photonics West 2006, 2007, 2009, 2012, 2013, 2014; **37.** GDR Inter. Workshop, 2013; **38.** National Conference on Condensed Matter Physics 2013, **39-41.** IRMMW-THz 2013, 2009, 2006; **41-44.** SPIE International Conference Optics + Photonics 2013, 2011, 2010; **45.** NATO Advanced Research Workshop on “ THz and Security: Detectors, Sources and Associated Electronics for THz Applications”, Kiev 2013; **46.** The International 7th Terahertz Days, 2013; **47.** Intern. Conf. on Semiconductor Mid-IR Materials and Optics 2013; **48-52.** IQCLSW 2012 2006, 2020, 2022; **53-55.** EOS Topical Meeting on THz Science and Technology 2012, 2014; **56.** Annual Meeting of the European Optical Society "Optical Microsystems and Lasers" 2011, **57.** ESLW-2018; **58.** FisMat 2015; **59-60.** Photonica 2012, 2010; **61-62.** Graphene 2016, 2019; **63.** Huawei International Workshop 2022; **64.** ICTP Winter College on Optics: Terahertz Optics and Photonics 2023; **65.** Italy-Korea International 2D material workshop 2016; **66.** NanoItaly 2015; **67-70.** Neaspec Analytic Workshop 2019, 2022, 2026; **69.** 2D material conference, Neaspec 2024; **70.** OSA Sensors 2015, Boston; **72.** OTST 2019; **73.** Phosphorene and 2D materials Workshop 2017; **74.** POEM 2019; **75.** Photonics Online Meeting 2021; **76.** Teranano VII 2016; **77-80.** SPIE Photonics Europe 2015, 2023, 2025; **81-85.** National Congress of the Italian Physical Society 2014, 2016, 2018, 2019; **86.** TeraMeta nano 2017; **87.** TeraTech 2023; **88.** Terahertz German Conf 2015; **89.** Graphene and 2D Mat 2023; **90-91.** ITQW 2015, 2021; **92.** Wolte15, 2022; **93-95.** Meta 2018, 2025, 2026; **96.** AES 2024; **97.** NanoPlasm 2024; **98.** MRS 2024; **99-100.** Cleo Europe 2017, 2025; **101,102** 2dNano 202, 2025.

Patents: **1.** Italian patent TO2007A000806 “Planarization processing of quantum cascade lasers with improved thermal performance” Inventors: Di Franco-Lops-Scamarcio-Spagnolo-Vitiello- 12/11/2007.

2. US Patent pending (since 2025): “Up-converted FIR photonic source device integrating a Dirac-like material with THz quantum cascade laser in on-chip geometry” Inventors: Vitiello-Di Gaspare.

Industrial contracts and projects: **1.** Bando Industria Sostenibile “Ministero dello sviluppo Economico – MaXima Project “Multiple Actions for Innovation in Machine Automation” – *scientific coordinator CNR*. (2016-2019); **2.** Innovation Research Program of the Ministry of Enterprises and Made in Italy “Navigans” Novel Architecture of ultralow-Volume Integrated Gyroscopes for Advanced Navigation Systems PI (2024-2027) **3.** Contratto Industriale IMA Pharma (2016-2019) **4.** Contratto industrial GEM Elettronica (2025-2028) **5.** Contratto industrial ELT (2026-2029)

Book chapters: **1.** “Mid Infrared and Terahertz quantum cascade lasers” edited by Cambridge University Press (2023) Chapter 8; **2.** “Nanodevices for Photonics and Electronics: Advances and Applications - Edited by Pan Stanford (2016), Chapter 5; **3.** “THz and Security applications” NATO Science for Peace and Security Series B: Physics and Biophysics.

Research Highlights: **1.** News and Views “Graphene grating lifts terahertz quantum cascade lasers into the Reststrahlen band” Nature Nanotechnology 20, 1546 (2025). **2.** News and Views “Terahertz Matters”, Nature Photonics, 17, 844–845 (2023); **2.** News and Views “The quest for ultrafast plasmonics” Nature Nanotechnology 12, 187–188 (2017); **3.** Research Highlights “Black phosphorus detector”, Nature Photonics 9, 631 (2015); **4.** News and Views “Frequency comb cascade”, Nature Photonics 8, 819–820 (2014); **5.** News and Views “Polaritons: Hungry cavities” Nature Physics 10, 796–797 (2014); **6.** News and Views “Nanoscale terahertz spectroscopy” Nature Phot. 8, 815-817 (2014); **7.** Physics Synopsis “High-Precision Terahertz Spectroscopy”, APS Physics, April 9th (2014); **8.** Terahertz-wave detector”; Nature Research Highlights 486, 297 (2012); **9.** 50th Anniversary of Applied Phys. Lett.-Editor's Picks, p. 6, (2012); **10.** “Quantum-cascade efficiency boost”, Nature Photonics 1, 383 (2007).

ADDITIONAL INFORMATION

Commissions of Trusts and professional activities

- **2025** Member of the Scientific Advisory Board of the HZDR – Helmholtz-Zentrum Dresden-Rossendorf
- **Since 2020**: Mercator Fellow Collaborative Research Center SFB1277 – University of Regensburg
- **2019-2023**: Member Scientific Council – Department of Physical Science and Technology of the Matter- CNR
- **Since 2018**: Delegate of the Italian ministry of University and Research as Member of the Scientific Council of the National Institute of Metrology
- **Since 2019**: Member of the Scientific Advisory Board of the Central European Institute of Technology, Brno
- **Since 2020**: Director of the photonic laboratory of the CNR Infrastructure “Quantum Simulations and technologies”
- **Since 2014**: Director and Team Leader THz nanophotonics lab. and THz near-field microscopy lab. (c/o NEST)
- **Since 2012**: Member of the Faculty Board PhD Degrees (Scuola Normale Superiore, Pisa Italy).

Evaluation panels

Since 2022: National Science Centre, Poland (NCN) – Chair of the panel ST3 Condensed Matter Physics - **2020, 2022**: European Research Council - ERC – Starting Grant – PE3 Panel Member - **2023, 2024**: European Innovation Council - Pathfinder - **2025**: Panel Member Quanteria 2025/2026 - **2024**: Panel Member HE Space 2024 - **2014, 2018-2024**: Monitor FET Open EU project and an EC running project - **Since 2016**: Advisory Board "Shanghai Institute of Microsystem and Information Technology" - **Since 2015**: Panel Member Agence Nationale de la Recherche (ANR, France) ANR-AAP générique - **2014**: Panel/Evaluator for project calls Italian Ministry of Economic Development - **2012**: Panel "FIRB- Futuro in Ricerca" Italian Ministry of Education and Research: PE2- PE8- PE9- PE10.

Teaching

1. Since 2015: Adjunct professor Scuola Normale Superiore (SNS); *Courses*: Physics of Semiconductors; Nanostructured Materials and Condensed Matter Physics, 2. (2006-2010) University of Bari: Incarico di insegnamento annuale *Courses: Optoelectronics; Laboratory of Electronic Devices* 3. (2006-2010) Politecnico di Bari–General Physics I and II

Supervision of graduate students and postdoctoral fellows: 26 Master degree thesis (Laurea) and 10 PhD thesis in Physics. In the last 10 years I directed a group of 15-10 people. All my alumni are presently assistant professors or leading engineering in top companies (ST Microelectronics, Lumiphase, Coherent, Menlo)

Editorial Board: 1. Associate Editor “Optica” – 2. Chief Specialty editor Frontier “Applied Photonic” – 3. Associate Editor Nature Scientific Reports, *Springer Nature* – 4. Associate Editor Nanoscale, *Royal chemical society*. – 5. Guest Editor “APL Materials”, American Institute of Physics – 6. Guest Editor “Journal of Infrared Millim. and THz Waves” Springer- Special issue “THz QCLs”; 7. Guest Editor “Optics Express” – Focus Issue on “Quantum Cascade Lasers” (2014-2015). 8. Guest Editor Nanophotonics – Focus Issue Infrared and THz quantum technologies (2023-2024). 9. Guest editor Special Issue: Advances in Science of Light – Light Science&Applications (2024-2025).

Research and Teaching Fellowships

- Invited professor, (6 months) Ecole Normale supérieure, Paris France (2024-2025).
- Univ. of Montpellier II, (France) (June-July 2013); (May-June 2012); (Nov.-Dec. 2011); (April-May 2011)
- THALES Research and Technology, Paris (France) (March-April 2006)
- University of Paris VII, Paris (France) (January-February 2005).
- Technical University of Delft, Dept. of Nanoscience and Nanotech.- (Netherlands) (Nov./Dec. 2004)

Organization of Conferences -Member of the steering/program committee of international conferences

- **2014, 2024, 2026**: Chair of the International Quantum Cascade Lasers School & Workshop, (IT) - **2022, 2024**: Chair International workshop Quantum Materials and Structured Light, Erice, (IT) - **2023**: Chair ITQW 2023 - **Since 2023**: Chair Photonics West “Quantum Sensing Nanoelectronic and Nanophotonic Devices” (USA) - **2022**: Chair “International Workshop on Terahertz photonics and nanoelectronics”, Pisa (IT) - **Since 2020**: Program Committee Member Conference on Lasers and Electro Optics CLEO Europe - **Since 2020**: IOC Member International Conference on Infrared, Millimeter, and THz Waves - **Since 2010**: Program committee International Quantum Cascade Lasers School & Workshop - **2014**: Program Committee Member 4th EOS Topical Meeting on Terahertz Science & Tech., May 2014(IT) - **Since 2013** (annually): Program Committee Member "Optical Interactions with Condensed Matter and Ultrafast Phenomena"- "Quantum Electronics and Laser Science Conference (QELS)"- San Jose (USA). - **2016, 2014, 2013**: Director “International School of Photonics” – Cortona (Italy) - **2013**: Program Comm.-Topical Meeting "Optical Sensors"- Optical Society of America, July 2013 (USA) - **2011, 2012, 2014, 2015, 2016-2021**: Program Comm. - SPIE International Conference "Optics + Photonics" "Terahertz Emitters, Receivers, and Applications" San Diego (USA). - **Since 2018**: Program Committee Member Intern. Conf. "Optical THz Science & Technology. - **2017**: Chair Intern. Conf. "Optical THz Science & Technology", April 2nd-6th, 2017 London. - **2017**: Chair "Inter. Conf. on Intersubband Transitions in Quantum Wells 2017", Singapore, - **2017-2021** Program Committee - "THz Science and Technology" "International Conference on Lasers and Electro-Optics (CLEO)"- San Jose (USA). - **2016**: Chair "Inter. Workshop on THz Science, Nanotechnology and Applications", Erice, July 16th -21st (2016) - **2010-2023**: Member of the program committee at SPIE International Conference "Photonics West"-

Outreach

1. Ted-X 2023 (<https://tedxpolicoro.it/miriam-serena-vitiello/>); **2. Pontificia Academy of Science – Plenary Session** (<https://www.youtube.com/watch?v=LiQYxzSTiTI>); **3. Women in Optics Planner 2016-2017** - SPIE, Miriam S. Vitiello - Lead Physicist; **4. RAI Scuola: MEMEX** - Progettare la materia - intervista a Miriam Vitiello (Cnr-Nano, Pisa) Emittente: Rai Scuola; Programma: MEMEX. **5. Radio 3 Scienza Rai: Rifondare la ricerca** - Intervista a Miriam Vitiello, ERC Consolidator Grant 2015; **6. Radio 24: Programma: "Smart-City"- Voci e Luoghi dell'Innovazione** "Fosforene: sviluppata in Italia la prima applicazione del "silicio del XXI secolo"", intervista **7. L'Espresso: Nuovi Materiali: sottili come il grafene ma molto più utili nel creare chip elettronici, strumenti biomedicali e altro. Così la ricerca apre orizzonti inediti. Anche quella italiana;** **La Repubblica:** "Le eco-radiazioni che ci aiuteranno a scoprire tutto: dalle carie agli esplosivi". **Video di presentazione delle attività di ricerca** "Dipartimento di Scienze Fisiche e Tecnologie della Materia", In occasione dei 90 anni del CNR in collaborazione con Rai Radio Televisione Italiana. Link:<https://www.youtube.com/watch?v=unlAHzD9Vo8>. **Io Donna, Repubblica:** "Cervelli non in Fuga: La sfida delle ricercatrici: restare in Italia".

Career breaks for maternity leave: 1. October 2017- April 2018; 2. November 2019 – May 2020.