

Curriculum vitae di *Ferdinando Auricchio*

**Sottosettori ERC primari**

**PE8\_4 Computational engineering**

**PE8\_10 Manufacturing engineering and industrial design**

**PE11\_8 Engineering of alternative established or emergent materials**

**PERSONAL DETAILS**

**Birthdate:** June 1st, 1965, in Napoli (Italy)

**Email:** [ferdinando.auricchio@unipv.it](mailto:ferdinando.auricchio@unipv.it)

**Personal web-page:** <https://compmech.unipv.it/members/ferdinando-auricchio/>

**Group web-page:** <https://compmech.unipv.it/>

**RESEARCH UNIQUE IDENTIFIER:**

**ResearcherID:** B-9405-2009

**Orcid:** 0000-0002-3735-2400

**CURRENT ACADEMIC POSITION:**

Since 2001 **Full Professor** of Solids and Structural Mechanics, Department of Civil Engineering and Architecture (previously Department of Structural Mechanics), University of Pavia, Italy

Since 2001 **Research Associate** at IMATI-CNR (Institute for Applied Mathematics and Information Technologies of the National Research Council), Pavia, Italy

**PAST ACADEMIC POSITION:**

1998-2001 **Associate Professor** of Mechanics of Solids, Department of Structural Mechanics, University of Pavia, Italy

1994-1998 **Assistant Professor** of Mechanics of Solids, Department of Civil Engineering, University of Roma Tor Vergata, Italy

**EDUCATION:**

1995 **Doctor of Philosophy** (Ph.D.), Department of Civil Engineering, University of California at Berkeley, USA

1991 **Master of Science** (M.S.), Department of Civil Engineering, University of California at Berkeley, USA

1989 **Bachelor's degree** in Civil Engineering, University of Napoli, Italy

## **RESEARCH ACHIEVEMENTS AND PEER RECOGNITION**

### **Research achievements**

**SCIENTIFIC PRODUCTION:** (according to Scopus, update on 16 April 2026)

**Documents:** 526, **Article:** 398, **H-Index:** 72, **Citations:** 18623, **Citations excluding self-citations:** 15713

**PATENTS:** 6 patents, among which 1 granted CH, DE, FR, GB, IE, NL, NO, Pending US, CA, IT

**SPIN-OFF:** currently involved as founder in 3 start-ups, recognized as university spin-offs

**Etesias** developing concrete 3D printing, as an innovative, sustainable, efficient, and flexible process, for the production of new prefabricated reinforced concrete elements [ [link](#) ]

**AdaptAM** developing 3D printed supports for human body with multiple applications, mainly in the medical field [ [link](#) ]

**CAMELIA Technology** developing technological advancements in the field of computational mechanics, design, innovative, sustainable, efficient, and flexible manufacturing technologies [ [link](#) ]

### **GRANTS (SELECTED):**

- 2025-2027 “SPIN – Smart Pumping for Innovative Nephrology”, Regione Lombardia (Budget: 1.314.298 Euro)
- 2023-2025 “ProtesiCAM: Innovative prosthetics for vascular and orthopedic applications and through Additive Manufacturing”, Italian Ministry for Industry and Made in Italy, Regione Lombardia (Budget 2.575.103 Euro)
- 2019-2022 “3DP\_Future. 3D Printing: a bridge to the future. Computational methods, innovative applications, experimental validations of new materials and technologies”, Italian Department of University Research (Budget: 336.848 Euro)
- 2017-2022 “ProTechTion. Industrial decision-making on complex Production Technologies supported by simulaTion-based engineering”, H2020 Program (Budget: 353.792 Euro)

### **Peer recognition**

#### **MAJOR (RECENT) ACCOMPLISHMENTS:**

2021-2026 **President of ECCOMAS** (European Community of Computational Methods in Applied Sciences), European association made of 23 national association

Since 2018 Member of the **Italian National Academy of Science** (known also as Accademia dei XL)

#### **AWARDS, HONORS, FELLOWSHIPS (SELECTED):**

2019 Eugenio Beltrami Prize, M&MOCS International Research Center on Mathematics and Mechanics of Complex Systems (Italy)

2018 von Karman Fellowship for incoming scientists, RWTH Aachen University (Germany)

2016 **Euler Medal** by ECCOMAS (European Community of Computational Methods in Applied Sciences)

2015 **San Siro Merit** by Municipality of Pavia

2012 **Fellow Award** by IACM (International Association for Computational Mechanics)

#### **RESEARCH/INSTITUTIONAL ACCOMPLISHMENTS (SELECTED):**

Since 2025 Member of the Executive Committee for the National Academy of Science (2025-2029)

Since 2023 Coordinator of the Master Program on “Computational and Modeling Engineering for Materials, Structures, and Sustainable Technologies”

Since 2023 Coordinator of **AMaLo** (“Additive Manufacturing in Lombardy”) cluster, recognized as Technology Supply Chain by Lombardy

Since 2022 Coordinator of the Ph.D. Program in “Design, Modeling and Simulation in Engineering”

Since 2021 Coordinator of the “Additive Manufacturing” Thematic Group within AFIL (Lombardy cluster for Smart Industry)

Since 2018 Member of the **Executive Council of IACM**

Since 2015 **3D@UniPV proponent and coordinator** of University of Pavia **strategic thematic project** on “Virtual Modeling and Additive Manufacturing (3D printing) for Advanced Materials”

## CV Soci Accademia di Ingegneria e Tecnologia

2020-2024	Member of the international academic network within the Cluster of Excellence “Integrative Computational Design and Construction for Architecture (IntCDC)” at University of Stuttgart
2023	Member for the European Research Council (ERC) of the Advanced Grant 2023 Products and Processes Engineering (PE8) panel
2017-2026	Member of the Executive Council for SISCo (Italian Society of Mechanics of Solids and Structures)
2015-2020	Vice-president of IDBN, the Italian Digital Biomanufacturing Network
2013-2020	<b>Vice-President of ECCOMAS</b>
2009-2013	Member of the <b>General Council of IACM</b>
2009-2013	Member of the <b>Managing Board and Executive Committee of ECCOMAS</b>

## **ADDITIONAL INFORMATION**

### **Other contributions to the research community**

#### **PROFESSIONAL ACCOMPLISHMENTS/COMMITTEES (SELECTED):**

Since 2022	Member of the Board of Directors for the University of Pavia
Since 2022	Member of the Board of Directors of CBIM (Bioengineering & Medical Informatics Consortium)
Since 2021	Member of the Scientific-Technical Committee of CBIM
Since 2023	Member of the Board of AITA (the Italian Association of Additive Technologies)
Since 2013	Member of the <b>Advisory Committee on Technical Standards for Constructions</b> for CNR (National Italian Research Council)
2019	Member of the Serra Húnter selection international committee, Universitat Politècnica de Catalunya (UPC), Spain
2019, 2011	Member of the <b>evaluation committee for the German Excellence Initiative</b> (University of Bochum), Germany
2012-2018	<b>Department Chair</b> (Department of Civil Engineering and Architecture)
2015-2017	<b>Member of VQR Committee</b> for the Evaluation of the Italian University and Research System in Civil Engineering GEV 8.b
2014-2017	Coordinator of the Ph.D. Program in “Civil Engineering and Architecture”
2013-2016	Member of the Academic Senate
2011-2014	<b>Chairman</b> of the <b>Civil Engineering sub-Committee</b> within the Evaluation of the Italian University and Research System (VQR 2004-2010)
2003-2009	<b>Department Chair</b> (Department of Structural Mechanics)
2002-2013	Member of the Scientific Committee of IUSS

#### **MEMBERSHIPS TO EDITORIAL BOARDS OF INTERNATIONAL JOURNALS (SELECTED):**

Since 2022	Associate Editor for <b>Computational Mechanics</b>
Since 2021	Editorial board for <b>International Journal of Material Forming</b>
Since 2017	Contributing Editor for <b>Mechanics of Advanced Materials and Structures Journal</b>
Since 2012	Editorial advisory board for <b>Computer Assisted Methods in Engineering and Science</b>
Since 2012	Editorial advisory board for <b>Advanced Modeling and Simulation in Engineering Sciences</b>
Since 2010	Editorial board for <b>Computer Methods in Applied Mechanics in Engineering</b>
Since 2004	Advisory board for <b>International Journal for Numerical Methods in Engineering</b>

#### **INVITED LECTURES AND/OR SEMINARS AT INDUSTRIAL SITES (SELECTED):**

2024	Novare, Smart Innovation Ecosystem, Shimizu Corporation, Tokyo (Japan), “Additive Manufacturing: an overview of current activities and possible future directions”
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#### **INDUSTRIAL SPONSORSHIP (SELECTED):**

Since 2024	Litem tester of special component test machine, with a special focus on biking race
Since 2020	<b>Stratasys beta-tester</b> , with a special focus on 3D printed material performances to reproduce realistic surgery

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- Since 2019 Development of metal 3D printing and milling platform for component of industrial interest (Companies: Fluid-o-tech; La Marzocco)
- Since 2019 **HP Demo center**, with a special focus on biomedical application

### CONSULTANCY WORK (SELECTED):

- 2024 Pirelli
- 2023 “Computational thermo-fluid dynamics analyses for spray diffusers”, Bettinelli, Bagnolo Cremasco (Italy)
- 2022 “1D superelastic SMA wire model”, Vitesco Technologies GmbH, Regensburg (Germany)
- 2021 “Supporto allo sviluppo di un programma di calcolo per l’analisi dello stato di tensione e deformazione di una paletta di rotore”, JuLight srl, Pavia (Italy)
- 2020 “Algoritmo di stampabilità in 3D printing partendo da disegni 3D”, Accenture, Milano (Italy)
- 2020 “Research cooperation in respect to additive manufacturing technology, in particular with the aim of identifying, developing, verifying and mechanically testing new combinations of 3DP materials in order to mimic the human tissues”, Stratasys (Israel)
- 2015 “Feasibility study in the use of styrene-based polymers in the design and realization of low-cost 3D printing prototypes and components”, Versalis (Italy)
- 2015 “Compression tests on anti-freezing rubber supports”, Fluid-o-Tech (Italy)
- 2013 “Mechanical testing on femurs”, Lima (Italy)
- 2008 “Validation of a SMA constitutive model”, Saes Getters (Italy)
- 2008 “Polymer active surfaces using shape memory alloys”, Agom International (Italy)
- 2007 “Analysis of Actuators with Shape Memory Effects”, Nokia (Finland)
- 2003 “Design indications for rectangular pressure vessels”, Fedegari Autoclavi, Pavia (Italy)
- 2001 “Implementation of SMA constitutive models”, MSC Marc Software (USA)
- 1999 “Implementation of SMA constitutive models”, LS-Dyna Software, Livermore (USA)
- 1997 “Functional adaptive composites”, Fiat Research Center, Torino (Italy)

### PLENARY/SEMI-PLENARY PRESENTATIONS AT INTERNATIONAL CONFERENCES (SINCE 2021):

- 2025 **Plenary**, NHISMEH25, New Horizons In Structural Mechanics, Elasticity and Homogenization, Lucca (Italy)
- 2024 **Plenary**, International Workshops on Advances in Computational Mechanics, Kitakyushu, Japan,
- 2024 **Plenary**, Congress on Numerical Methods in Engineering, Portuguese Association of Theoretical, Applied and Computational Mechanics (APMTAC) and Spanish Society of Numerical Methods in Engineering (SEMNI). Aveiro (Portugal)
- 2024 **Sectional** (Semi-Plenary), ICTAM2024 International Congress of Theoretical and Applied Mechanics, Daegu (Korea)
- 2023 **Plenary**, 2<sup>nd</sup> GAMC-GIMC workshop on Common Research Interests in Computational Mechanics, 2<sup>nd</sup> German Italian Workshop on Computational Mechanics, Aachen (Germany)
- 2023 **Plenary**, COMPLAS International Conference on Computational Plasticity. Fundamentals and Applications, Barcelona (Spain)
- 2022 **Plenary**, ICCSM International Congress of the Croatian Society of Mechanics, Pula (Croatia)
- 2022 **Plenary**, Additive Manufacturing Benchmarks 2022, Bethesda (USA)
- 2021 **Plenary**, WCCM-ECCOMAS World Congress on Computational Mechanics and European Congress on Computational Methods in Applied Sciences and Engineering, Paris (France)

### LECTURES/KEYNOTES AT INTERNATIONAL CONF., WORKSHOPS AND/OR SCHOOLS (SINCE 2021):

- 2025 **Invited**, Modeling in Applied Mechanics: A symposium to honor Patrick Le Tallec, Paris (France),
- 2025 **Invited**, CSQV 2025 (Computational Science – Quo Vadis), A symposium to honor Trond Kvamsdal, Trondheim (Norway)
- 2023 **Invited**, Sixth Workshop on Thin Structures, Naples (Italy)
- 2023 **Invited**, International Summer School on Data-driven exploration and design of materials, Dresden Center for Computational Materials Science (DCMS), Dresden Center for Intelligent Materials (DCIM), D<sup>3</sup> Research Training Group 2868, Dresden (Germany)

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- 2022 **Invited**, Advances in Sustainable Bio- and Nano- Materials and Technologies, Lake Como School of Advanced Studies, Como (Italy)
- 2022 **Invited**, International Symposium on Biomechanics: Challenges of the Next Decade, in honor of Professor Gerhard A. Holzapfel's 60th birthday, Graz (Austria)
- 2022 **Keynote**, CMBE22 International Conference on Computational and Mathematical Biomedical Engineering, Milan (Italy)
- 2022 **Invited**, Workshop on Multiscale Coupled Models for Complex Media: From Analysis to Simulation in Geophysics and Medicine, Mathematisches Forschungsinstitut Oberwolfach (Germany)

### **INVITED PRESENTATIONS/LECTURES TO NATIONAL CONF. AND/OR WORKSHOPS (SINCE 2021):**

- 2025 Workshop in honor of Prof. Elio Sacco on his 70th birthday, Napoli (Italy)
- 2022 AIV Conference on Materials, Interfaces, Processes in Industrial and Basic Research Applications, Napoli (Italy)
- 2021 Joint Challenge, Cernobbio (Italy)

### **INVITED LECTURES AND/OR SEMINARS (SINCE 2021):**

- 2025 Università "Luigi Vanvitelli", Dipartimento di Architettura e Disegno Industriale, Aversa (Italy)
- 2025 IMDEA Materials Institute, Madrid Institutes for Advanced Studies, Madrid (Spain)
- 2023 International Research Center for the Mathematics and Mechanics of Complex, Università dell'Aquila (Italy)
- 2023 Accademia Nazionale delle Scienze, detta dei XL, Colloquia dei XL (webinar)
- 2023 University of Roma La Sapienza, (Italy)
- 2022 Ecole Polytechnique, Paris (France)
- 2022 Annual Master on Biology and Biotechnologies for reproduction: from research to clinics, Pavia (Italy)
- 2022 Dipartimento di Ingegneria, Università di Roma III (Italy)
- 2022 Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genova, Genova (Italy)
- 2022 MaP Distinguished Lecture Series on Additive Manufacturing, Competence Center for Materials and Processes (MaP), ETH Zurich (Switzerland)
- 2021 Dipartimento di Ingegneria, Università di Roma III (webinar)
- 2021 Colloquium at SSM - School for Advanced Studies of Napoli (webinar)
- 2021 Institut de mécanique et d'ingénierie, Département de Ingénierie Mécanique et Conception, École Nationale Supérieure d'Arts et Métiers, France (webinar)
- 2021 Polytechnical University of Timișoara (UPT) Timișoara, Romania (webinar)