

PERSONAL INFORMATION

Full Name: Massimiliano Cremonesi
Nationality: Italian
Birth date and place: July, 3rd 1982 - Orzinuovi (BS), Italy
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CURRENT POSITION

2019 Associate Professor of Solid and Structural Mechanics
Department of Civil and Environmental Engineering, Politecnico di Milano (Italy)

PREVIOUS POSITIONS

2014 – 2019 Assistant Professor of Solid and Structural Mechanics
Department of Civil and Environmental Engineering, Politecnico di Milano (Italy)
2012 – 2014 PostDoc at Department of Civil and Environmental Engineering, Politecnico di Milano
2011 PostDoc at Laboratoire de Mécanique et Technologie (LMT), École Normale Supérieure de Cachan, (France)
2010 PostDoc at Department of Structural Engineering, Politecnico di Milano (Italy)

EDUCATION

2010 Ph.D. in Structural, Earthquake and Geotechnical Engineering
Politecnico di Milano (Italy)
Title: A Lagrangian finite element method for the interaction between flexible structures and free surface fluid flows
Supervisor: Prof. U. Perego
2006 Master Degree in Mathematical Engineering
Politecnico di Milano (Italy)
2004 Bachelor Degree in Mathematical Engineering
Politecnico di Milano (Italy)

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2010 – date Supervisor of 15 Master students in Civil Engineering and 2 Master students in Mathematical Engineering.
Supervisor of 2 Ph.D. students in Structural, Earthquake and Geotechnical Engineering.
Supervisor of 2 PostDoc fellows.

TEACHING ACTIVITIES

2017 - 2020 Teacher of the course *Solid and Structural Mechanics* for Building Engineering, 9 ECTS, Politecnico di Milano, Italy
2016 - 2017 Teacher of the course *Mathematics and Solid Mechanics* for Environmental Architecture, 4 ECTS, Politecnico di Milano, Italy
2015 - 2020 Teacher of the course *Solid and Structural Mechanics* for Environmental Architecture, 6 ECTS, Politecnico di Milano, Italy
2014 - 2015 Teacher of the course *Statics and principles of structural behavior for Environmental Architecture*, 4 ECTS, Politecnico di Milano, Italy
2007 - 2014 Teaching assistant of the different courses of *Computational Mechanics*, *Advanced Computational Mechanics*, *Solid and Structural Mechanics*, *Fracture Mechanics* for Civil, Mathematical and Mechanical Engineering

Advanced teaching activities:

- 2020 Director of the advanced course on “Particle-Based Methods in Engineering and Applied Science”, CIMNE, Barcelona 6-7 July, 2020
- 2019 and 2020 Teacher of the course “Advanced topics in the finite element method for structural analysis”, Politecnico di Milano

ORGANISATION OF SCIENTIFIC MEETINGS

- 2020 Organizer of the symposium “Numerical Simulation of Natural Hazards” at World Congress in Computational Mechanics and ECCOMAS Congress 2020, 19-24 July, 2020
- 2019 Organizer of the symposium “Particle-Based Methods for the Simulation of Natural Hazards” at Particles 2019, 28-30 October, 2019
- 2018 Organizer of the symposium “Numerical Simulation of Landslides and Debris Flows” at World Congress in Computational Mechanics, New York City, 22-27 July, 2018
- 2017 Chairman and Organizer of the International Conference “Young Investigator Conference 2017” organized by ECCOMAS (European Community on Computational Methods in Applied Sciences)

INSTITUTIONAL RESPONSIBILITIES

- 2020 Member of a Committee for a PhD Defence, Politecnico di Milano (Italy)
- 2019 Member of a Committee for a PhD Defence, University of Liege (Belgium)
- 2019 Member of a Committee for a PhD Defence, Universitat Politècnica de Catalunya, Barcelona (Spain)
- 2010 to date Reviewer for the principal journal in the field of Computational Mechanics (approximately 12 reviews per year) e.g. *Natural Hazard*, *Ocean Engineering*, *Finite Elements in Analysis and Design*, *Engineering and Computational Mechanics*, *Advances in Water Resources*, *Nuclear Engineering and Design*, *Meccanica*, *Computational Particle Mechanics*, *Concurrency and Computation*, *European Journal of Mechanics - A/Solids e Advanced Modeling and Simulation in Engineering Sciences*.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES:

- 2018 – date EUROMECH - European Mechanics Society
- 2017 – date SISCO – Italian Association of Solid and Structural Mechanics
- 2007 – date AIMETA – Italian Association of Theoretical and Applied Mechanics

AWARDS AND ACKNOWLEDGEMENTS

- 2019 “AIMETA Junior” Prize for Mechanics of Solids and Structures (awarded on a biennial basis, by the Italian Association of Theoretical and Applied Mechanics (AIMETA) to young (i.e., under 38) Italian scientists for outstanding research results
- 2016 Selected as member of the Young Investigator Committee of ECCOMAS (European Community on Computational Methods in Applied Sciences). The Young Investigator Committee is composed by young scientists (40 years old or younger) with the final aim of promoting the activities of young researcher in the field of computational science.
- 2013 Awarded by NVIDIA Corporation with a computing graphics processing unit (GPU Tesla K20) for the development of scientific research
- 2012 National French qualification to the position of “Maître de conférences”, sector 60, Mécanique, génie mécanique, génie civil
- 2011 Finalist of the 1st PhD Olympiads (European competition for the best PhD thesis on Computational Mechanics)

FOUNDING (AS PI):

2020	DEMAC srl, Numerical simulation of hose reels, 35 k€
2019 – 2022	Ministry of Education, University and Research, XFAST-SIMS: Extra fast and accurate simulation of complex structural systems, 140 k€
2017	ENI s.p.a., Implementation of Vermeer-Neher elasto-visco-plastic constitutive law in a Abaqus user subroutine, 15k€
2016	Pfisterer S.r.l, Numerical simulation of current interrupter, 1.5 k€
2016	ABB Switzerland Ltd, Corporate research: Lagrangian Approaches for the Modelling of Vacuum Arcs in 3D, 34k€
2015	ABB Switzerland Ltd, Corporate research: Lagrangian Approaches for the Modelling of Vacuum Arcs in 3D, 50k€

PUBLICATIONS:

I authored more than 20 papers in peer reviewed journals (top ranked in the field of Computational Mechanics). According to the database Scopus at the current date (2020, February) I have 482 citations (406 without self citations) and h-index of 11 (11 without self citations). According to Google Scholar: citations number: 689, h-index= 14.

CONFERENCES:

I have always participated actively in the national and international conferences in the area of the Computational Mechanics, as testified by the more than 50 papers presented (of which 10 by invitation of the Organizers). Recently I have been selected as invited plenary speaker for the conference “Scientific Computing in Electrical Engineering” (October, 2016), selected as “Keynote” Lecturer at “ECCOMAS Coupled Conference 2017 (June, 2017) and plenary lecturer at the Italian Conference of Applied and Theoretical Mechanics (September, 2019). I have been invited to give seminars in different Institution (e.g. TU Deft, University of Liege,...).

Milano, February 20, 2020

Massimiliano Cremonesi



Autorizzo il Politecnico di Milano a pubblicare il presente curriculum sul sito WEB di Ateneo, ai fini istituzionali e in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 “Decreto trasparenza” come modificato dal D. Lgs. 97 del 2016”