

GIANLUIGI ROZZA

Master Degree in Aerospace Engineering, Politecnico di Milano, 2002

Ph.D in Mathematics, Numerical Analysis, EPFL, 2005

PERSONAL DATA



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PRESENT POSITION

SISSA–International School for Advanced Studies Trieste (Italy), Mathematics Area, mathLab

-Since JANUARY 2018

Full Professor (law 240/2010) in Numerical Analysis (MAT/08), with affiliations in the Phd Program in Mathematical Analysis, Modelling and Applications, Master in High Performance Computing (SISSA-ICTP), Master in Mathematics (SISSA-University of Trieste), and Master in Data Science and Scientific Computing (SISSA-University of Trieste-University of Udine).

Mathematics Area Coordinator (2020-)

SISSA mathLab group coordinator (2018-)

Principal Investigator of the Project H2020, **European Research Council (ERC)**, Consolidator Grant (CoG), **AROMA-CFD**, Advanced Reduced Order Methods with Applications in Computational Fluid-Dynamics, 2016-2022, GA 681447, PE1 (Mathematics), 2016-2021 (1,66 MEur) and **ERC PoC ARGOS 2022-23**.

-SISSA **Director's Delegate for Technology/Knowledge Transfer and Industrial Cooperation** (2016-);

-SISSA **SIAM Student Chapter, Faculty Coordinator and Founder** (2015-);

-SISSA **PhD Coordinator** Mathematical Analysis, modelling, and Application (2018 – 2020)

-**SMACT** (Triveneto national competence center Industry 4.0), President of the Supervision Committee, 2022 – present, board of directors member (2018-2021).

PAST POSITION

SISSA–International School for Advanced Studies Trieste (Italy), Mathematics Area, mathLab

-NOVEMBER 2014-JANUARY 2018

Associate Professor (law 240/2010) in Numerical Analysis (MAT/08), with affiliations in the Phd Program in Mathematical Analysis, Modelling and Applications, Master in High

Performance Computing (SISSA-ICTP) and Master in Mathematics (SISSA-University of Trieste).

-NOVEMBER 2012-OCTOBER 2014

SISSA Excellence Grant NOFYSAS (New Opportunities For Young Scientists at SISSA), 11-2012/ 10-2014. **Independent research project** “Computational and geometrical reduction strategies for the simulation, control and optimization of complex systems” within SISSA mathLab (Director Prof. A. De Simone), Mathematics Area.

EPFL– Ecole Polytechnique Federale de Lausanne (Switzerland)

-MAY 2008 - OCTOBER 2012 (External Scientific Collaborator 2012-2015)

Senior Researcher in the Chair of Modelling and Scientific Computing (Director Prof. A. Quarteroni) and **Lecturer** at the Doctoral School of Mathematics and Mechanics, and at the Section of Mathematics of EPFL (in 2012 green light for the title of MER, Maitre d’Enseignement et Recherche).

MIT- Massachusetts Institute of Technology, Boston MA (USA)

-MAY 2006-APRIL 2008 (Research Affiliate 2008-2014)

Department of Mechanical Engineering and Center for Computational Engineering, Prof. Anthony T. Patera’s group, **Post Doctoral Associate Researcher**.

EPFL- Ecole Polytechnique Fédérale de Lausanne (Switzerland)

-NOVEMBER 2002-APRIL 2006

Chair of Modelling and Scientific Computing (Prof. Alfio Quarteroni), PhD and Post-Doctoral **Research Assistant**.

Doctoral School in Applied Mathematics (Numerical Analysis, Computational Engineering), thesis “avec mention”, December 8, 2005.

PREVIOUS EDUCATION

Politecnico di Milano, master degree in **Aerospace Engineering**, specialization aerodynamics, 100/100 cum laude, October 14, 2002 (master thesis abroad at EPFL, EU Socrates Programme).

PRIZES, AWARDS AND ACADEMIC HONORS

Bill Morton CFD Prize 2004 **Bill Morton CFD Prize 2004**, Award (Trinity College, Oxford, 31 March 2004) for young researchers under 31 given every three years by Computational Fluid Dynamics Institutes and Computing Laboratories of Oxford and Reading Universities (UK) during International Conference ICFD, held in 2004 in St.Cathrine College, Oxford, UK.

MIT Fellowship 2005 **MIT young researcher fellowship** for exemplary research in computational fluid mechanics, June 2005.

ECCOMAS Ph.D Award 2006 European Community on Computational Methods in Applied Sciences **Ph.D Award** for the best Ph.D Thesis in Computational Science and Engineering of 2005 awarded at **ECCOMAS CFD 2006** Conference in the Netherlands, September 2006.

Special Mention EPFL, 2006	Special mention by Research Commission of EPFL for PhD Thesis, ranked in the best 4% of all the theses (~250) discussed in 2005 at EPFL.
Springer CSE Prize 2009	Computational Science and Engineering Prize by Springer-Verlag (June 2009) with D.B.P. Huynh, N.G. Nguyen for developing the software library rbMIT for real-time computing in computational mechanics.
ECCOMAS Lions Award, 2014	European Community on Computational Methods in Applied Sciences, Jacques Louis Lions Award in Computational Mathematics for Young Investigators (under 40), awarded in Barcelona, Spain at the WCCM conference, July 2014.

OTHER PROFESSIONAL ACTIVITIES AND DUTIES

Editorial Boards

- Guest Editor **ACOM**, Advanced Computational Mathematics, special issues on model order reduction for parametrized systems, 2013-2015.
- SIAM/ASA JUQ**, Journal of Uncertainty Quantification, **Associate Editor**, 2015-2020.
- SIAM SINUM** Journal of Numerical Analysis, **Associate Editor**, 2016-2021.
- CVS**, Computing and Visualisation in Science, **Associate Editor**, 2016-2021.
- Mathematics in Engineering**, MinE, **Associate Editor**, 2019-present.
- ACOM**, Advances in Computational Mathematics, **Associated Editor**, 2021-present.
- Editor in Chief of **MCA** Mathematics and Computational Application, 2019-present.
- Associate Editor of **International Journal for Computational Fluid Dynamics** (IJCFD), 2021-present

Conference organization and minisimposia

- Co-organizer of 30 minisymposia on reduced order modelling at international conferences
- Involved in 25 Conference organization and scientific committees.

Other Projects Participation/Networking and Duties

- POR FESR**, Regione Friuli Venezia Giulia, within **MARE FVG: SOPHYA** –Seakeeping Of Planing Hulls of Yachts- with MonteCarlo Yachts and **PRELICA** – Innovative design for Ship Propellers – with CETENA, 21 months, 2017-2018. SISSA research unit coordinator.
- National coordinator** of PRIN NA-FROM-PDEs between SISSA, Università di Trento, Università Statale di Milano, Università di Pavia, Politecnico di Torino and CNR-IMATI, from 2019.
- Scientific responsible** POR-FESR Regione FVG with Mare FVG: UBE2 (Seakeeping) project with MonteCarlo Yacht and SAFE (safe return of cruises to the port) with CETENA, since 2019.
- H2020 RISE ARIA: Advanced Reduced Order Methods for Industrial Applications (local **coordinator**) with University di Siviglia, Bordeaux, INRIA, Politecnico di Torino, Optimad and Volkswagen, since 2019.
- EuroHPC Project: eFlowsHCP with UCS Barcellona, Inria, Bordeaux, Valencia, Siemens, PI-SISSA, since 2021.

Publications

145 Publications on international journals, 12 books as editors or co-author, 26 chapters and 20 proceedings and software open source at mathlab.sissa.it/cse-software.

Mentoring

36 master degree students, 13 of these students completed their Phd and for other four students Phd is in progress.

Impact

The following data are taken from **ISI Web of Knowledge/Web of Science (Thomson Reuter)** on July 24, 2022. Data referring to 2022 are only partial.

The number of indexed publications considered is 131 with 3237 as number of citations. Average citations per item is 24.71, H-index is 29, average citations per year is 179.83. Yearly citations were 275 in 2017, 276 in 2018, 349 in 2019, 440 in 2020, 526 in 2021, 278 in 2022 (partial).

According **Scopus** (same date) H-index is 32, total citations 4735 (440 in 2018, 513 in 2019, 697 in 2020, 731 in 2021, 470 in 2022 (partial), items indexed are 189.

American Mathematical Society provides the facilities offered by website **MathSciNet**. In the **MathSciNet** database (more selective than ISI Web of Science and more focused on mathematics) there are 128 records of publications with a total of 2345 citations by 1315 different authors.

Conferences

Invited speaker at more than 100 international workshops, conferences and seminars in several universities and research centers worldwide, among them a dozen of plenary lectures.

SISSA, Trieste, July 2022

Prof Dr Gianluigi Rozza

