CV, Attività Scientifica, Didattica e Istituzionale
Prof. Gianluigi Rozza

DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI
(art. 46 DPR 28/12/2000, n. 445)

DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETA'
(art. 47 DPR 28/12/2000, n. 445)

Il sottoscritto

Gianluigi ROZZA, Codice fiscale [redacted]

nato [redacted]

attualmente residente [redacted]

consapevole che le dichiarazioni mendaci sono punite ai sensi degli artt. 483, 495, 496 del codice penale e delle leggi speciali in materia

DICHIARA:

- che tutte le informazioni rese all'interno del curriculum vitae firmato e datato 21 Giugno 2017 (pagine I-XXII, allegato b) sono corrispondenti al vero e sono rese ai sensi degli artt. 46 e 47 del DPR 445/2000.

Il sottoscritto esprime il proprio consenso affinché i dati personali forniti possano essere trattati nel rispetto del D. Lgs. n. 196/2003 – EU 2016/679 (GDPR) per gli adempimenti connessi alla presente procedura.

Trieste, 5 Aprile 2025

il dichiarante

Prof. Gianluigi Rozza

L'originale compilato e sottoscritto è depositato presso gli Uffici dell'Ente

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Master Degree in Aerospace Engineering, Politecnico di Milano, 2002
Ph.D in Mathematics, Numerical Analysis, EPFL, 2005

PERSONAL DATA

- [redacted]
- E-Mail: gianluigi.rozza@sissa.it
- Professional Address: SISSA, International School for Advanced Studies, Mathematics Area, mathLab, room A-435, Via Bonomea 265, 34136, Trieste, Italy

RESEARCH

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, GA 681447, PE1 (Mathematics), 2016-2021 (1,66 MEur) and **ERC PoC ARGOS** 2022-23.

PAST POSITIONS

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).

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-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'Einsegnement 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. Title of the thesis "Shape Design by Optimal Flow Control and Reduced basis Techniques: Applications to Bypass Configurations in Haemodynamics", advisor Prof. Alfio Quarteroni, committee Prof. V. Agoshkov, Prof. J. Rappaz, Prof. A.T. Patera.

PREVIOUS EDUCATION

- 1996-2002

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

TEACHING ACTIVITIES

-ACADEMIC YEARS 2002-03, 03-04, 04-05, 05-06, 08-09,

Assistant for 10 exercises cycles of **Numerical Analysis** Courses for Engineers (several sections) at **EPFL.**

-ACADEMIC YEARS 2008-09, 09-10, 10-11, 11-12, 12-13

-Responsible of projects and exercises (20 hours) for the INRIA-EDF-CEA Summer School held in Paris (June 2008) on **"Reduced basis methods for Optimization"** (Prof. A.T. Patera, Prof. Y. Maday).

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-**Lecturer** in the spring semester 2009, 10, 11, 12, 13 for the course **"Computational Mechanics by Reduced Basis Methods"** MATH-703 at the Doctoral School of Mathematics (and Mechanics) of EPFL .

-**Lecturer** in the fall semester 2009 and 2010 for the course **"Analyse Numerique"** MATH-251 (Bachelor) for Civil and Environmental Engineers (in charge at the Section of Mathematics of EPFL).

-**Co-lecturer** (33%) in the spring semester 2010 and 2012 of the course **"Advanced Topics in Numerical Modelling for PDEs"** MATH-741 at the Doctoral School of Mathematics of EPFL.

-**Co-Lecturer** at the summer school **"Optimal control of PDEs"** held in Cortona, Italy and organized by INdAM, SMI, Scuola Normale Superiore di Pisa, July 2010 (coordinator Prof. M. Falcone).

-**Co-Lecturer** at the summer school **"Model Order Reduction and adaptivity for PDE-constrained optimization"** held in Hamburg, Germany, supported by ESF and DFG, July 2012 (coordinator Prof. M. Hinze).

-**Co-Lecturer** at the summer school **"Separated Representation and PGD based model reduction: fundamentals and applications"** held at **CISM in Udine**, Italy, July 2013 (coordinator Prof. P. Ladeveze).

-**Co-Lecturer** at the summer school **"Reduced Basis Methods and Applications"** held at **TUM,** Munich, Germany, September 2013 (coordinator Prof. B. Wohlmuth).

ACADEMIC YEAR 2013-14, 14-15, 15-16, 16-17, 17-18, 18-19, 19-20, 20-21, 21-22, 22-23, 23-24

-Lecturer at **SISSA** (48 hours), Doctoral Course in Mathematical Analysis, Modelling and Applications: **"Applied Mathematics: Introduction to Numerical Analysis and Scientific Computing"** (fall semester, 50% with Dr Luca Heltai, in collaboration with the new master in High Performance Computing SISSA-ICTP and the master in mathematics of University of Trieste), **"Topics in Computational Fluid Dynamics"** (20h, spring semester) and "**Advanced Topics in the Numerical Solutions of PDEs: Reduced Basis Methods"** (20h, spring semester).

-Lecturer at the summer school **"Reduced Basis Methods and Applications"** held at **University of Sevilla,** Spain, July 2014 (coordinator Prof. T.C. Rebollo).

-Co-Lecturer at the Erasmus Mundus course **"Model reduction for Computational Mechanics"** held at **UPC, Barcelona,** Spain, January 2015 (coordinator Prof. P.Diez).

-**Didattica di Eccellenza**, Politecnico di Torino, October-November 2015, 20h, on Reduced Basis Methods and Applications (coordinator Prof. C. Canuto).

-Minicourse at University of Trento (November 2015), 6h (coordinator Prof. A.Valli).

-Course "Certified Reduced Basis Methods"at BCAM (Bilbao), January 2016 (coordinator Dr L. Gerardo Giorda).

-**Co-lecturer** at the Summer School IESC Cargese, Corsica (September 2016), Lectures on "Reduced order methods" (coordinator Prof. D. Marini).

-**Co-lecturer** at the winter School CISM, Udine (December 2020), Lectures on "Reduced order methods" (coordinator Prof. W. Wall).

PRIZES, AWARDS AND ACADEMIC HONORS

Premio Gandini 1996	**Premio Gandini** (Gold Medal) awarded in 1996 by Comune di Lodi (Italy) after Scientific Diploma (best 5 years curriculum).
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

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	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.
Civic Awards	Riconoscenza Civica (Civic Award) by native town (S.Angelo Lodigiano, Italy) in 2005 and Dardo D'Oro (Civic Medal) by residence town (Castiraga Vidardo, Italy) in 2010.

FUNDING RECORD (PI/CO-PI)

2005-06 FNS	EPFL, Research Committee, Swiss National Science Foundation. "Reduced Basis Methods for Fluid Mechanics Problems". Post-doctoral grant (12 months).
2007 Rocca	MIT-Politecnico di Milano Progetto Roberto Rocca (with A.T. Patera and A. Quarteroni) "New Developments for Reduced Basis Methods in Fluid Mechanics". Visiting/travel grant.
2009-2011 FNS	Co-applicant (with A. Quarteroni and S. Deparis) at Swiss National Science Foundation for a research grant on "Reduced Basis Method for Optimization and Control". Grant approved for two Phd students (2x36 months).
2011-2013 FNS	Co-applicant (with A. Quarteroni) at Swiss National Science Foundation for a research grant on "Numerical Simulation of sailing boats: dynamics and shape optimization". Grant approved to fund 24 months of a Phd student.
2012-2015 FNS	Co-applicant (with A. Quarteroni) "Model reduction strategies for control, optimization and uncertainty quantification of parametrized systems". Grant approved to fund 36 months of a Phd student.
2012-2014 SISSA	Main Investigator: SISSA Excellence Grant (Direction programme), independent project NOFYSAS "Computational and Geometrical Reduction Strategies for the simulation, control and optimization of complex systems".

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2015 INDAM GNCS	"Reduced Order Modelling for CFD", INDAM-GNCS national project (SISSA, Politecnico di Torino, University of Brescia and Pavia). Coordinator.
2016 INDAM GNCS	Tecniche di Riduzione computazionale per le scienze applicate (Università di Pavia, Politecnico di Milano, SISSA). Coordinator.
2017 INDAM GNCS	Tecniche di Riduzione computazionale e applicazioni (Università di Pavia, Politecnico di Milano, SISSA, Università di Trento). Coordinator.
H2020-ERC CoG AROMA-CFD	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, GA 681447, PE1 (Mathematics), 2016-2021 (1,66 MEur).
H2020 MSCA ITN EID ROMSOC	Local Coordinator at SISSA for H2020 MSCA ITN EID ROMSOC, European Industrial Doctorate, Reduced Order Methdos for Simulation, Optimization, Control. Network coordinator: TU Berlin, Industrial Partners: Danieli and Arcelor Mittal (2018-2021).
FARE X AROMA	Principal Investigator of the project. FARE-X-AROMA-CFD is an initiative of Italian Government, funded by the Italian Ministry for Education, University and Research (MIUR) to incentivate ERC grantees to stay in Italian Universities or to come back to Italy from abroad.
HORIZON EUROPE ERC PoC ARGOS	Principal Investigator of the Project Horizon Europe, European Research Council (ERC) Proof of Concept (PoC), ARGOS, Advanced Roduced Groupware Online Simulation, (150 K Eur).

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,** 2013-2020.

-**SIAM SINUM** Journal of Numerical Analysis, **Associate Editor**, 2016-2021.

-**CVS,** Computing and Visualisation in Science, **Associate Editor**, 2016-2020.

-**Associate Editor** in Rivista Rendiconti di Matematica dell'Istituto di Matematica dell'Università di Trieste, 2018-present

-**Mathematics in Engineering**, MinE, **Associate Editor**, 2019-poresent.

-**ACOM**, Advances in Computational Mathematics, **Associated Editor**, 2021-present.

-Editor in Chief of **MCA** Mathematics and Computational Application.

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-Associate Editor of **International Journal for Computational Fluid Dynamics** (IJCFD), 2021-present

Conference organization and minisimposia

Co-organizer of minisymposia on reduced order modelling at international conferences:

-ICOSAHOM conference, NTU-Trondheim, Norway, June 2009;
-ECCOMAS CFD Conference, Lisbon, Portugal, June 2010;
-ICIAM 2011 Conference held in Vancouver, BC, Canada in July 2011;
-5th HPCS, High Performarnace Scientific Computing conference, Hanoi, Vietnam, March 2012;
-ECCOMAS Congress, Vienna, Austria, September 2012;
-SIAM CSE13, Boston, US, February 2013;
-ENUMATH 2013, EPFL, Lausanne, Switzerland, August 2013;
-SIAM UQ14, Savannah, GA, US, April 2014;
-ECCOMAS CFD, ECCM, WCCM 2014, Barcelona, Spain, July 2014;
-SIAM CSE15, Salt Lake City, UT, US March 2015;
-ICIAM, Beijing, China, August 2015;
-ECCOMAS Congress 2016, Crete, Greece, July 2016;
-WCCM16, Seoul, Korea, July 2016
-SIAM AN16, Boston, US, July 2017;
-SIAM CSE17, Atlanta, US March 2017;
-FEF 2017, Rome, Italy, April 2017;
-Coupled ECCOMAS, Rhodes, Greece, June 2017;
-ADMOS 2017, Verbania, June 2017;
-SIAM CSE19, Spokane, US, March 2019;
-WCCM-ECCOMAS, Paris, 2020;
-SIAM UQ, 2020-2022
-Coupled ECCOMAS, Barcelona, June 2021;
-SIAM CSE, virtual, 2021;
-SIMAI 2021;
-ECCOMAS MARINE, 2021;
-ECCOMAS Conrgress 2022, Oslo, Norway, June 2022;
-ECCOMAS M2P Conference, Math2Product, Taormina, Italy, June 2023;

Conference organization and scientific committees:

-**MPF2010** Symposium, Modelling of Physiological Flows, Chia Laguna, Sardinia, June 2010 (organizing committee);
-MOX-Politecnico and CCE-MIT joint Rocca Workshop on Reduction Strategies for the Simulation of Complex Systems, **RS2CP**,Politecnico di Milano, January 2011 (organizing committee);
-CECAM and CADMOS workshop at EPFL on reduced order modelling, May 2012 (co-organizer);
-MOX10 workshop celebrating 10th anniversary of MOX at Politecnico di Milano, May 2012 (co-organizer);
-MoRePas II workshop, October 2012, Gunzburg, Germany (scientific committee);
-SIAM conference in Computational Science and Engineering (SIAM CSE13) Boston, MA, USA, February 2013 (organizing and scientific committee and responsible of the **CSE Career Panel**);
-**MPF2013** Symposium, Modelling of Physiological Flows, Chia Laguna, Sardinia, June 2013 (organizing and scientific committee);
-**SISSA YS3**, Young Scientists Seminar Series (2014 supported by INDAM, 2016 supported by COST EU-MORNET), Organizer/Chair;
-MoRePas III 2015, co-chair of the Executive and Scientific Committee;
-**Model Order Reduction** workshop, **special semester IHP, Institut Henri Poincarè, 2016**, Paris, France, November 2016 (Scientific Committee and Organizer);
-**FEF 2017**, IACM, Rome, April 2017, co-chair;

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-**QUIET 2017**, SISSA, Italy, July 2017, co-chair, supported by NSF and AFOSR;
-**ECCOMAS Young Investigators Conference**, Scientific Committee, 2017, Politecnico di Milano;
-**ECCOMAS thematic workshop RB-POD-PGD**, Scientific Committee, November 2017, Sevilla, Spain;
-**SIAM AN DR17,** US, Dimension Reduction, Scientific Committee;
-**MORCOS 2018**, Stuttgart, Germany, Scientific Committee;
-Co-chair **ECCOMAS** Coupled 2021;
-**RAMSES 2021**, Trieste, December 2021;
-**SIAMUQ24**, Trieste Febbraio 2024;

Other Projects Participation/Networking and Duties

-Haemodel EU-RTN 2002-2006, young researcher, EPFL.
-Solar Impulse, solar airplane, round-the-world-flight, preliminary design project 2004-2006, EPFL.
-**DARPA, AFOSR** projects during post-doctoral years at MIT, Program Review for Fluid Mechanics, Computational Math and Physical Analysis, and Dynamics and Control, 2006-2008.
-**MIT,** Pappalardo Monographs in Mechanical Engineering**,** book and software project, 2007-2008.
-Mathcard ERC advanced grant (Prof. Alfio Quarteroni), task coordinator (optimization and control), 2009-2013.
-TRACE, Transportation Center of EPFL, feasibility evaluation Clip-Air project, 2009-2011.
-PRIN 2012 "Mathematical and Numerical Modelling of Cardiovascular System: clinical applications". Partners: SISSA mathLab, Politecnico di Milano MOX, University of Milano and Pavia, 2014-2016, support scientist.
-EU-MORNET, COST, Cooperation in Science and Technology, European Network on Model Order Reduction, 2014-2017, national representative of Management Committee (MC) and Work Group Coodinator (on methodological developments).
-**PAR-FSC** projects within **DITENAVE** (nautical and naval technological cluster of **Regione Friuli Venezia-Giulia,** now **MARE tc FVG**). Project **UBE** (Underwater Blue Efficiency), partners MonteCarloYachts, SISSA mathLab, University of Udine, Cergol Engineering, DLM, Eidon Lab, Optimad, 2014-2016, SISSA unit research coordinator.
-**Danieli Research Center**, Fluid Structure Interaction problems for Industrial Applications, 2014-2018, SISSA unit research coordinator.
-**Cergol Engineering**, Reduced order modelling for design and analysis, 2014-2015, SISSA unit research coordinator.
-**Area Science Park**, Trieste, **Innovation Network**, 2013-2014, consultant.
-**Friuli Innovazione, Re-Seed** (with Alberto Sartori), 2014, "academic" partner.
-**TRIM-OPT**, Cluster Trasporti Italia 2020, Responsible for the Optimization Unit at SISSA (main partner CNR-INSEAN).
-**FSE HEaD**, European Social Fund, Higher Education and Developments, Regione Friuli Venezia Giulia, scientific coordinator of two projects on Mathematical Modelling and Industrial Numerical Simulation and Optimization: 24 months and 12 months at SISSA, 2017-2018. In collaboration with Fincantieri.
-**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, Unviersità di Pavia, Polkitecnico di Torino and CNR-IMATI, from 2019.
-**Scientific responsible** POR-FESR Regione FVG with Mare FVG: UBE2 (Seakeeping) project with MonteCarlo Yatch 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.
- MISTI MIT Italy (MIT International Science and Technology Initiatives), 2020-2021
-EuroHPC Project: eFlowsHCP with UCS Barcellona, Inria, Bordeaux, Valencia, Siemens, **PI**-SISSA, since 2021.

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SISSA duties/mentoring

-SISSA **Director's Delegate for Technology/Knowledge Transfer** and Industrial Cooperation (2016-);
-SISSA Technology Transfer Commission (2016-)
-SISSA Director's Delegate in the Scientific Commission of ARPA FVG (Regional Agency for Environmental Protection), (2016-);
-SISSA **SIAM Student Chapter**, Faculty Coordinator and Founder (2015-);
-SISSA web commission (2014-);
-SISSA **HPC** guidelines committee (2014-);
-SISSA Library Open Access and Open Data Committee (2016-);
-Member of several selection commissions for post-doc researchers at SISSA (2014-) and PhD entrance exams.
-SISSA-MIT IROP, International Research Opportunities, **Exchange of MIT students** for summer internship at SISSA mathLab (2013-);
-SISSA **Pre-doc supervision**: Denis Devaud (2013, ETHZ), Giuseppe Pitton (2014, Politecnico di Milano), Sten Poinsioen (2015, TU Delft), Federico Pichi (2016, Sapienza Roma), Saddam Hijazi (2016, L'Aquila), Matteo Zancanaro (2016, Politecnico di Milano), Giulia Meglioli (2017, Politecnico di Milano), Nirav Shah (2017, University of Stuttgart), Maria Strazzullo (2017, University of Trieste).
-SISSA **young visiting scientists supervision**, mostly funded by COST EU-MORNET (Immanuel Martini, 2014, 2015, Stuttgart; Mladjan Radic, 2015, Ulm; Enrique Delgado, 2015, Sevilla; Silke Glas, 2015, Ulm; Saray Busto, 2016, Santiago de Compostela).
-SISSA **Post-docs supervision**: Francesco Ballarin (2015-), Giovanni Stabile (2016-), Martin Hess (2016-), Michele Girfoglio (2017-).
-SISSA **Scientific projects supervision**: Giovanni Corsi (2014-2016, Danieli), Filippo Salmoiraghi (2014-2016, UBE), Marco Tezzele (2015-, TRIM).
-SISSA **PhD supervisor** (S. Ali, third year; Z. Zainib, second year).
-SISSA for High Schools (educational lectures) and Trieste NEXT (2016-).
-SISSA MCS, Master in Science Communication (module course "Communicating Mathematics") (2014 guest lecture, 2017- present)
-SISSA PhD supervisor of doctoral projects financed by Fincantieri and Electrolux Professional
-SISSA **PhD Coordinator** Mathematical Analysis, modelling, and Application (2018 – 2020)
-**Mathematic Area Coordinator** at SISSA, (2020 – present).

Other duties:

-**European Commission** H2020 MSCA IF Individual Fellowships Evaluation Panel MAT, 2016-2018, Expert.
-**Reviewer activities** for the main international journals in Numerical Analysis, Scientific Computing and Computational Mechanics.
-**Reviewer for national and international funding agencies** (FNS Switzerland, Canada, Chile, Brazil, Hong Kong, Poland, ERC).
-**Member in doctoral committees** (Alessandro Alla, Sapienza, 2013), Ondrej Budac (EPFL, 2016), Diane Guignard (EPFL, 2016), Marianna Signorini (MOX, PoliMI, 2016), Matteo Giacomini (Ecole Polytechnique Paris, 2016), Carlos Quesada (Saragoza, 2017), Andrea Gadda (PoliMi, 2017), Lorenzo Zanon (Aachen RWTH, 2017), Immanuel Martini (Stuttgart, 2017), Valentina Dolci (PoliTo, 2017), Andrea Lario (PoliTo, 2017), Alessandro Montino (GSSI, 2017), Ivan Fumagalli (PoliMI, 2017), Alessandro Pini (PoliMI, 2017), Giulia Fabrini (Genova, Paris VI, 2017).
-**SMACT** (Triveneto national competence center Industry 4.0) management board member, 2019-2022
-**Scientific Committee Member of Rachael**, spin-off of SWG, Sissa and Università di Trieste, 2020-present.
-**NetVal** Scientific Committee, 2020-present.

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-Director of Technical-Scientific Committee of **MARE FVG**, 2021-present.
-Technical- Scientific Committee of CUOA Vicenza, 2020-present.
-Board member of IP4FVG, 2020-2022.
-SMACT (Triveneto national competence center Industry 4.0), President of the Supervision Committee, 2022 – present.
-ECCOMAS Executive Committee 2022-
-**FAST Computing srl Società Benefit**, Scientific Director 2022-

Professional Memberships/Societies

TESI - Trieste Encounters on Science and Innovation, Science to Policy Committee. ESOF, European Science Open Forum Trieste European Capital of Science, 2020.
NetVal, Italian Network of Technology Transfer Offices of Universities and Public Research Organizations, since 2020.
SMACT, National Competence center Industry 4.0, since 2018.
MIT FVG Project, Coordinator, since 2017.
UMI, Unione Matematica Italiana, since 2009.
SIMAI, Società Italiana di Matematica Applicata all'Industria, since 2005.
SIAM, American Society for Industrial and Applied Mathematics, since 2004.
Alumni PoliMI, Politecnico di Milano Alumni Association, since 2002. Area Leader: Boston 2007-2009, Lausanne 2009-2012, Trieste 2013-present, Auditor 2010-2012.
EMS, European Mathematical Society, since 2011.
GNCS-INDAM, National Group of Scientific Computing, 2012-present
Ordine degli Ingegneri della Provincia di Lodi (N.450), Settore A (IND, CIV, INFO), since 2004 (Esame di Stato 2003, Sessione I, Politecnico di Milano).

PUBLICATIONS LIST

Publications In International Journals

[J1] A. Quarteroni, G. Rozza. "Optimal Control and Shape Optimization in aorto-coronaric bypass anastomoses". In *Mathematical Models and Methods in Applied Sciences* M3AS (WorldScientific, Singapore). Vol.13 N.12, 2003, pp.1801-1823. (ISSN: 0218-2025).

[J2] G. Rozza. "Reduced Basis Methods for Elliptic Equations in subdomains with A-Posteriori Error Bounds and Adaptivity". In *Applied Numerical Mathematics* (Elsevier, Amsterdam, The Netherlands), Vol.55 N.4, 2005, pp.403-424. (ISSN: 0168-9274).

[J3] G. Rozza. "On Optimization, Control and Shape Design for an arterial bypass". In *International Journal for Numerical Methods for Fluids* (Wiley, Chichester, UK), Vol.47 N.10-11, pp.1411-1419, 2005. (ISSN: 0271-2091).

[J4] V. Agoshkov, A. Quarteroni, G. Rozza. "Shape Design Approach using Perturbation Theory for bypass anastomoses". In *SIAM Journal on Numerical Analysis* (SIAM, Philadelphia, USA), Vol.44 N.1, 2006, pp.367-384. (ISSN: 0036-1429).

[J5] V. Agoshkov, A. Quarteroni, G. Rozza. "A Mathematical Approach in the Design of Arterial Bypass Anastomoses using unsteady Stokes equations ". In *Journal of Scientific Computing* (Springer, New York, USA) Vol. 28, N.2-3, 2006, pp. 139-165. (ISSN: 0885-7474).

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[TD2] A. Manzoni, *"Reduced models for optimal control, shape optimization and inverse problems in haemodynamics",* PhD Thesis, EPFL, N.5402, May 2012. **(ECCOMAS Phd award 2012).**

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Master Thesis

[TM1] G. Rozza. "Controllo Ottimale e Ottimizzazione di Forma in Fluidodinamica Computazionale" Master Degree Thesis (Laurea), Aerospace Eng., Advisor: Prof. Alfio Quarteroni, MOX-Politecnico di Milano, Italy, 2002.

Master Theses as co-advisor or advisor

[TM2] L. Dede'. "Controllo ottimale e adattivita' per equazioni alle derivate parziali e applicazioni" Master Degree Thesis (Laurea), Aerospace Eng., Advisor: Prof. Alfio Quarteroni, MOX-Politecnico di Milano, Italy, 2004. (Exchange student at EPFL).

[TM3] A. Quaini. "Metodi a basi ridotte per problemi differenziali di fluidodinamica ambientale" Master Degree Thesis (Laurea), Aerospace Eng., Advisor: Prof. Alfio Quarteroni, MOX-Politecnico di Milano, Italy, 2005. (Exchange student at EPFL).

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[TM6] F. Gelsomino. "Exploration and comparison of reduced order modelling techniques for parametrized system", Master degree Thesis, EPFL, 2010.

[TM7] A.Trezzini. "Reduced basid methods for parametrized PDEs and 3D applications", Master degree Thesis, Politecnico di Milano, 2010. (Exchange student at EPFL).

[TM8] A. Koshakji. "Free From Deformations for 3D Shape Optimization problems", Master degree Thesis, Politecnico di Milano, 2011. (Exchange student at EPFL).

[TM9] F. Negri. "Reduced Basis Method for Parametrized Optimal Control Problems", Master degree Thesis, Politecnico di Milano, 2011. (Exchange student at EPFL).

[TM10] D. Forti. "Comparison of Shape Parametrization Techniques for Fluid-Structure Interaction Problems", Master degree Thesis, Politecnico di Milano, 2012. (Exchange student at EPFL).

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[TM11] P. Pacciarini. "Stabilized reduced basis method for parametrized advection-diffusion problems", Master degree Thesis, University of Pavia, 2012. (Exchange student at EPFL).

[TM12] A. D'Amario. Master degree Thesis, Politecnico di Milano, 2016. (pre-lauream student at SISSA).

[TM13] L.M.Valsecchi. Master degree Thesis, Politecnico di Milano, 2016. (pre-luaream student at SISSA).

[TM14] E.Cangemi. Master degree Thesis, Politecnico di Milano, 2016. (pre-lauream student at SISSA).

[TM15] S. Ponsioen. Master degree Thesis, Delft Technical University, 2015. (Erasmus Plus exchange student at SISSA).

[TM16] D.Torlo. Master degree Thesis in Mathematics, Università di Trieste, 2016.

[TM17] L. Venturi. Master degree Thesis in Mathematics, Università di Trieste, 2016.

[TM18] S. Hijazi. Master degree Thesis, MathMods, University of L'Aquila, 2016. (pre-lauream student at SISSA).

[TM19] F. Pichi. Master degree Thesis, University Sapienza, Roma, 2016. (pre-lauream student at SISSA).

[TM20] M. Strazzullo. Master degree Thesis, Università di Trieste, 2017. Predoc at SISSA.

[TM21] M. Zancanaro. Master degree Thesis, Politecnico di Milano, 2017. (pre-lauream student at SISSA). Predoc at SISSA.

[TM22] G. Zuccarino. Master degree Thesis, Università di Trieste, 2017.

[TM23] G. Meglioli. Master degree Thesis, Politecnico di Milano, 2017. (pre-lauream student at SISSA).

[TM24] F. Garotta. University of Pavia, 2018.

[TM25] N. Shah. "Finite Element Reduced Basis (Proper Orthogonal Decomposition) Approach for Geometrically Parametrized Stokes Flow", University of Stuttgart, 2018.

[TM26] F. Romor. "Reduction in Parameter Space for Problems approximated by Discontinuous-Galerkin Method in Computational Fluid Dynamics", University of Trieste, 2019.

[TM27] J. Genovese. "Reduced Order Methods for Uncertainty Quantification in Computational Fluid Dynamics", Politecnico di Torino, 2019.

[TM28] G. Ortali. "A Data-Driven Reduced Order Optimization Approach for Cruise Ship Design", Politecnico di Torino, 2019.

[TM29] M. Pintore. "Efficient Computation of Bifurcation Diagrams with Spectral Element Method and Reduced Order Models," Politecnico di Torino, 2019.

[TM30] G. Infantino. Politecnico di Torino, 2020.

[TM31] D. Papapicco. "A neural network framework for reduced order modelling of non-linear hyperbolic equations in computational fluid dynamics", Politecnico di Torino, 2021.

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[TM32] P. Siena. "A machine learning-based reduced order model for the investigation of the blood flow patterns in presence of a stenosis of the left main coronary artery", Politecnico di Torino, 2021.

[TM33] A. Ivagnes. "Data Enhanced Reduced Order Methods for turbulent flows", Politecnico di Torino, 2021.

[TM34] M. Khamlich. "Model order reduction for bifurcating phenomena in fluid-structure interaction problems", Politecnico di Milano, 2021.

[TM35] E. Donadini. "A data-driven approach for time-dependent optimal control problems by dynamic mode decomposition", 2021.

[TM36] G.Padula, "Generative Models for 3D object deformation with constraints applied to reduced order modelling", Università degli Studi di Trieste, 2023.

[TM37] D. Roznowicz, "Large-scale Graph-Machine-Learning surrogate models for 3D-flowfield prediction in external aerodynamics", _____

[TM38] D. Coscia, "Generative Adversarial Method for Reduced Order Modelling", Università degli Studi di Trieste, 2023.

[TM39] I. Gonnella, "Numerical approaches to stochastic partial differential equations for parametric bifurcation problems", Università degli Studi di Trieste, 2023.

[TM40] G. Buccino, _____

[TM41] G. Abelli, "A comparison between data-driven and physics-based numerical methods for inverse problems", _____, 2023.

Nine of these students completed their Phd and for other four students Phd is in progress.

Popularization of Mathematics

[P1] A. Quarteroni, G. Fourestey, N. Parolini, C. Prud'homme, G.Rozza. *"Matematica in Volo con Solar-Impulse"*, in *Matematica e Cultura 2006*, M. Emmer Ed., Springer-Italia, Milan, Italy, 2006, pp.35-50. (ISBN 88-470-0464-0)

[P2] G. Rozza. *"Matematica e Impresa",* Brochure SIMAI, Societa' Italiana di Matematica Applicata all'Industria, Springer-Italia, Milan, Italy, 2006.

[P3] A. Quarteroni, G. Fourestey, N. Parolini, C. Prud'homme, G.Rozza. *"Mathematics in the Air with Solar-Impulse",* in *Mathematics and Culture 2008*, M. Emmer Ed., Springer, Heildeberg, Germany 2008.

[P4] D. Amsallem, B. Haasdonk, G. Rozza. *"SIAM CSE13: A Conference within a conference for MOR researchers"*, SIAM News July-August 2013.

[P5] ECCOMAS newsletter, research summery, submitted contribution, 2015.

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IMPACT IN THE SCIENTIFIC CITATIONS INDEX (SCI)

The following data are taken from **ISI Web of Knowledge/Web of Science (Thomson Reuter)** on March 17, 2024.

The number of indexed pubblications considered is 122 with 2740 as number of citations. Average citations per item is 23.42, H-index is 27, average citations per year is 161.18. Yearly citations were 275 in 2017, 273 in 2018, 346 in 2019, 422 in 2020, 337 in 2021 (partial).

According **Scopus** (same date) H-index is 38, total citations 7394 (702 in 2020, 736 in 2021, 781 in 2022, 1255 in 2023, 1077 in 2024 (partial), items indexed are 258.

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 **112** records of publications with a total of **2029 citations** by 1113 plenaryerent authors.

SELECTED INTERNATIONAL/NATIONAL CONFERENCES AND WORKSHOPS

Invited speaker at more than 80 international workshops, conferences and seminars in several universities and research centers worldwide, among them:

ECCOMAS CFD, Netherlands, 2006 (plenary); RB methods, Simula Research Laboratories, Oslo, 2008; MoRePaS I, Muenster, 2009 (plenary); RB methods, University of Ulm, 2010; Advances in PDEs, MOX-Politecnico di Milano 2010; MIT-Rocca workshop RS2CP, Politecnico di Milano, 2011; Advances PDEs, Isaac Newton Institute/Swansea Univ., UK, 2011; ROM-RB, Paris VI, JLL Laboratoire, 2011; CIRM, Trento, 2011; Archimedes Center, Heraklion, 2011; ECCOMAS Model Order Reduction, ENS Cachan, 2011; Paris VI, Journees Lions-Magenes, 2011; Nonlinear MOR, Max Planck Institute, Munich, 2012; MOX10, Politecnico di Milano, 2012; MOR and Adaptivity, Hamburg, 2012; CIRM CEMRACS, Marseille, France, 2013; ROM workshop, Caltech, Pasadena, USA, 2013; RB-POD-PGD ECCOMAS thematic conference, Blois, France, 2013; Workshop RB in High D., Paris VI, France, 2014; Minitutorials ROM for UQ, SIAM UQ14, Savannah, USA, 2014; CECAM workshop ENPC, Paris, 2014; Advanced PDEs, Edinburgh, UK, 2014; RB methods, Sevilla, Spain, 2014; **WCCM-ECFD-ECCM 2014, semi-plenary J. L. Lions Young Investigator Lecture, Barcelona, Spain, 2014**; COST workshop, TU Eindhoven, 2014; CMBBE, Amsterdam, 2014; Oberwolfach, 2015; PRIN Cardiovascular workshop, Milano, 2015; ROM TU Berlin, Germany, May 2015; Numerical Analysis and Scientific Computing, Genova, Italy, 2015; Graz Workshop on Optimal Control, 2015; ROM day EPFL, Lausanne, Switzerland, 2015; ECCOMAS thematic workshop ROM, ENS, Cachan, France, 2015; SIMULA, CBC, Oslo, Norway, 2015; ROM day, Bordeaux, France, 2015, **ICOSAHOM 2016, Rio de Janeiro, Brazil, 2016 (plenary)**; University of Shanghai/MPI workshop, China, 2016; ROM day, CESNEF, Politecnico di Milano, 2016; **Databest Nantes, France, 2017 (plenary)**; GCFD Conference, Virginia Tech, USA, 2017; **Parallel CFD, Glasgow, UK, 2017 (plenary); Optimal Control and Optimization, Paderborn, Germany, 2017 (plenary); ECCOMAS ADMOS 2017, Verbania, Italy (plenary); ECCOMAS Young Investigator Conference, Politecnico di Milano, 2017 (plenary); NumDiff21 (plenary).**

Selected Invited Seminars/colloquia: MOX, Politecnico di Milano; Politecnico di Torino; University of Freiburg, Germany; University of Basel, Switzerland; Aalto University, Helsinki, Finland; University of Stuttgart, Germany; SISSA, Trieste, Italy; University of Munster, Germany; RWTH Aachen, AICES, Germany; University of Trento; University of Rome, La Sapienza; IMT,

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Advanced Studies, Lucca; University of Pavia; University of Houston, USA; BCAM, Bilbao, Spain; ETHZ, Zurich, Switzerland, University of Toronto, Canada.

SISSA, Trieste, 15 September 2025

Prof Dr Gianluigi Rozza

L'originale compilato e sottoscritto è depositato presso gli Uffici dell'Ente

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