

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, [REDACTED],

[REDACTED]

[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, 24 agosto 2024

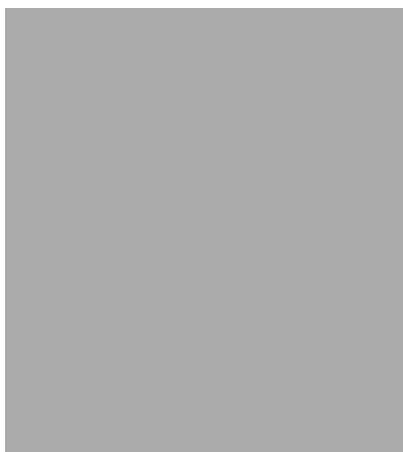
il dichiarante

Prof. Gianluigi Rozza

[REDACTED]

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

PERSONAL DATA



- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- Phone: +39 040 3787 451 (Office); [Redacted]
- Web: <http://people.sissa.it/~grozza>
- 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-)

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

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).

-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. 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 abroad 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).

-**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 (2020, 2023, 2024), Lectures on “Reduced order methods” (coordinators Prof. W. Wall, Prof. S. Elgeti, Prof. G. Haller).

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 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”.
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 Methods 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 Reduced Groupware Online Simulation, (150 K Eur).
ARIA	2019-2024 ARIA - Accurate ROMs for Industrial Applications, partner PI of four-year project financed by H2020-MSCA-RISE-2019, GA 872442 (coordinator: INRIA Bordeaux).
Eflows4HPC	2021-2023 Eflows4HPC - Enabling dynamic and Intelligent workflows in the future EuroHPCecosystem - partner PI of project financed under European High-Performance Computing Joint Undertaking (EUROHPC JU), GA 955558, (coordinator: BSC, Spain).
BLESSED	2023-2027 BLESSED - Bridging Models at Different Scales to Design New Generation Fuel Cells for Electrified Mobility, partner PI of financed project HE-MSCA-DN, GA 10107257 (coordinator: Toyota Motor Europe, Bruxelles).
EarthSAFE	2023-2027 EarthSAFE - Unveiling Earth’s Critical Resources for Clean Energy and a Sustainable Future, partner PI of financed project HE-MSCA-DN, GA 101120556 (coordinator: University of Twente, NL).

OTHER PROFESSIONAL ACTIVITIES AND DUTIES

Technology Transfer

- 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.
- 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-present
- EMS CAIR committee 2018-present
- iNEST Scientific Committee 2022-present
- FAST Computing srl Società Benefit**, Scientific Director 2022-present

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-present.
- ACOM**, Advances in Computational Mathematics, **Associated Editor**, 2021-present.
- Editor in Chief of **MCA** Mathematics and Computational Application.
- 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 Performance 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 Congress 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 Poincaré, 2016**, Paris, France, November 2016 (Scientific Committee and Organizer);
- FEF 2017**, IACM, Rome, April 2017, co-chair;
- 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 Coordinator (on methodological developments).
- PAR-FSC** projects within **DITENAVE** (nautical and naval technological cluster of **Regione Friuli Venezia-Giulia**, now **MARE to 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, 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.
- **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.

SISSA duties/mentoring

- 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 Poinsoen (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).

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-coronary 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).

[J6] G. Rozza, K. Veroy. “On the stability of Reduced Basis methods for Stokes Equations in parametrized domains”. In *Computer Methods in Applied Mechanics and Engineering*, (Elsevier, Amsterdam, The Netherlands) Vol.196, N. 7, 2007, pp. 1244-1260. (ISSN: 0045-7825).

[J7] G. Rozza, “Reduced Basis Techniques for Stokes Equations in domains with non-affine parameter dependence”. In *Computing and Visualization in Science*, (Springer, Berlin/Heidelberg, Germany) Vol.12, N.1, pp. 23-35, 2009. (ISSN: 1432-9360)

[J8] A. Quarteroni, G. Rozza. “Numerical Solutions of parametrized Navier-Stokes equations by reduced basis method”. In *Numerical Methods for PDEs* (Wiley, Chichester, UK), Vol.23, N. 4, pp. 923-948, 2007. (ISSN 0749-159X).

[J9] D.B.P. Huynh, G. Rozza, S. Sen, A. T. Patera. A Successive Constraint Linear Optimization Method for Lower Bounds of Parametric Coercivity and Inf-Sup Stability Constants. *C. R. Acad. Sci. Paris, Analyse Numerique* (Elsevier France, Paris), Vol. 345, pp. 473-478, 2007. (ISSN : 1631-073X).

[J10] G. Rozza, D.B.P. Huynh, A.T. Patera. “Reduced basis approximation and a posteriori error estimation for affinely parametrized elliptic coercive partial differential equations”. Invited paper for ARCME -*Archives of Computational Methods in Engineering*, CIMNE, Barcelona, Spain (by Springer Netherlands), Vol. 15, N.3, pp. 229-275, 2008.

[J11] R. Milani, A. Quarteroni, G. Rozza. “Reduced basis methods in Linear Elasticity problems with many parameters”. *Computer Methods in Applied Mechanics and Engineering*, (Elsevier, Amsterdam, The Netherlands) (ISSN: 0045-7825), Vol. 197, pp. 4812-4829, 2008.

[J12] **B. Haasdonk, M. Ohlberger, G. Rozza.** “Reduced Basis Method for Evolution Schemes with Nonlinear Explicit Operators”. Accepted for publication on *ETNA, Electronic Transaction in Numerical Analysis*, special issue on FEM applications, Vol. 32, pp. 145-168, 2008.

[J13] **S. Deparis and G. Rozza.** “Reduced basis method for multi-parameter dependent steady Navier-Stokes equations: application to natural convection into a cavity”. *J. Comp. Physics*, Vol. 228, pp. 4359-4378, 2009.

[J14] **C.N. Nguyen, G. Rozza, A.T. Patera,** “Reduced Basis Approximation and *A Posteriori* Error Estimation for the Time-Dependent Viscous Burgers Equation”. *Calcolo*, Vol. 46, pp. 157-185, 2009.

[J15] **Z.C. Xuan, T. Lassila, G. Rozza and A. Quarteroni,** “Computing upper and lower bounds for linear outputs of elasticity by the smoothed finite element method”. *Int. J. Numer. Meth. Engng.*, 2010, Vol.83, N.2, pp.175-193.

[J16] **T. Lassila, G. Rozza,** “Parametric free-form shape design with PDE models and reduced basis method”. *Computer Methods in Applied Mechanics and Engineering*, 2010, Vol. 199, N.23-34, pp. 1583-1592.

[J17] **G. Rozza,** “Reduced basis method and a posteriori error estimation for potential flows in parametrized geometries”. *Communication in Computational Physics*, Vol. 9, N.1, pp.1-48, 2011.

[J18] **F. Gelsomino, G. Rozza,** “Comparison and combination of reduced order modeling techniques in 3D parametrized heat transfer problems”. *Mathematical and Computer Modelling of Dynamical Systems*, Vol.17, issue 4, pp. 373--391, 2011.

[J19] **A. Manzoni, A. Quarteroni, G. Rozza,** “Shape Optimization of cardiovascular geometries by reduced basis methods and free-form deformation techniques”. *International Journal for Numerical Methods in Fluids*, vol. 70, p. 646-670, 2012.

[J20] **T. Lassila, G. Rozza.** “Model reduction of semiaffinely parametrized partial differential equations by two-level affine approximation”. *C.R. Acad. Sc. Paris, Mathematiques, Serie I, Analyse Numerique*, Vol. 349, pp.61-66, 2011.

[J21] **T. Lassila, A. Quarteroni, G. Rozza,** “A reduced model with parametric coupling for fluid-structure interaction problems”. *SIAM J. Scientific Computing*, Vol. 34(2), pp. A1187-A1213, 2012.

[J22] **G. Rozza, D.B.P. Huynh, A. Manzoni,** “Reduced basis approximation and a posteriori error estimation for Stokes flows in parametrized geometries: roles of the inf-sup stability constants”. *Numerische Mathematik*, Vol.125 (1), pp.115--152, 2013.

[J23] **A. Quarteroni, G. Rozza, A. Manzoni,** “Certified Reduced Basis Approximation for Parametrized Partial Differential Equations and Applications”. *J. of Mathematics in Industry*, Vol.1:3, pp.1-44, 2011.

[J24] **A. Manzoni, A. Quarteroni, G. Rozza.** “Model reduction techniques for fast blood flow simulation in parametrized geometries”. *International Journal for Numerical Methods in Biomedical Engineering*, Vol. 28, N.6-7, pp.604-625, 2012.

[J25] **T. Lassila, A. Manzoni, G. Rozza.** “On the approximation of stability factors for general parametrized partial differential equations with a two-level affine decomposition”. *M2AN, Mathematical Modelling and Numerical Analysis*, Vol.46, N. 6, pp.1555-1576, 2012.

[J26] **L. Iapichino, A. Quarteroni, G. Rozza.** “A reduced basis hybrid method for the coupling

of parametrized domains represented by fluidic networks”. *Computer Methods in Applied Mechanics and Engineering*, Vol. 221-221, pp.63-82, 2012.

[J27] **T. Lassila, A. Manzoni, A. Quarteroni, G. Rozza.** “A reduced computational and geometrical framework for inverse problem in haemodynamics”. *International Journal for Numerical Methods in Biomedical Engineering*, Vol. 29, N.7, pp.741-776, 2013.

[J28] **T. Lassila, A. Manzoni, A. Quarteroni, G. Rozza.** “Boundary control and shape optimization for the robust design of bypass anastomoses under uncertainty”. *M2AN, Mathematical Modelling and Numerical Analysis*, Vol. 47 N.4, pp. 1107-1131, 2013.

[J29] **A. Manzoni, A. Quarteroni, G. Rozza.** “Computational Reduction for Parametrized PDEs: Strategies and Applications”, *Milan J. Mathematics*, Vol. 80, N.2, p. 283-309, 2012.

[J30] **P. Chen, A. Quarteroni and G. Rozza.** “Simulation-based uncertainty quantification of human arterial network hemodynamics”. *International Journal Numerical Methods Biomedical Engineering*, Vol. 29 N.6, pp. 698-721, 2013.

[J31] **P. Chen, A. Quarteroni and G. Rozza.** “Comparison between reduced basis and stochastic collocation methods for elliptic problems”. *Journal of Scientific Computing*, Vol.59,N.1, pp.187-216, 2014.

[J32] **F. Negri, G. Rozza, A. Manzoni and A. Quarteroni.** “Reduced basis method for parametrized elliptic optimal control problems”, *SIAM Journal on Scientific Computing*, Vol.35, N.5, pp. A2316-A2340, 2013.

[J33] **P. Chen, A. Quarteroni and G. Rozza.** “Stochastic Optimal Robin Boundary Control Problems of Advection-Dominated Elliptic Equations”. *SIAM Journal on Numerical Analysis*, Vo.51, N.5, pp. 2700--2722, 2013.

[J34] **D. Devaud, A. Manzoni and G. Rozza.** “A combination between the reduced basis method and the ANOVA expansion: on the computation of sensitivity indices”. *Comptes rendus de l'Académie des Sciences. Série A, Sciences Mathématiques*, Vol. 351, N.15-16, pp.593-598, 2013.

[J35] **P. Chen, A. Quarteroni, G. Rozza.** “A weighted empirical interpolation method: a priori convergence analysis and applications”. *M2AN, Mathematical Modelling and Numerical Analysis*, vol. 48, p. 943-953, 2014.

[J36] **P. Chen, A. Quarteroni, G. Rozza.** “A weighted reduced basis method for elliptic partial differential equations with random input data”. *SIAM Journal on Numerical Analysis*, Vol. 51 N.6, pp. 3163-3185, 2013.

[J37] **F. Ballarin, A. Manzoni, G. Rozza, S. Salsa.** “Shape optimization by Free-Form Deformation: existence results and numerical solution for Stokes problem”. In press, *Journal of Scientific Computing*, Vol. 60, pp. 537-563, 2014.

[J38] **A. Koshakji, A. Quarteroni, G. Rozza.** “Free Form Deformation Techniques Applied to 3D Shape Optimization Problems”. *Communications in Applied and Industrial Mathematics (CAIM)*, Vol. 4, N.452, 2014.

[J39] **C. Jaggli, L. Iapichino, G. Rozza.** “An improvement on geometrical parametrizations by transfinite maps”. *Comptes rendus de l'Académie des Sciences. Série A, Sciences Mathématiques*, Vol. 352, N.3, pp. 263-268, 2014.

[J40] **P. Pacciarini, G. Rozza.** “Stabilized reduced basis method for parametrized advection-diffusion PDEs”. CMAME, *Computer Methods in Applied Mechanics and Engineering*, Vol.274, pp.1-18, 2014.

[J41] **I. Martini, G. Rozza, B. Haasdonk.** “Reduced basis approximation and a posteriori error estimation for the coupled Stokes–Darcy problem”, *Advances in Computational Mathematics*, MoRePaS special issue, Vol. 41, pp.1131-1157, 2015.

[J42] **D. Forti, G. Rozza.** “Efficient geometrical parametrisation techniques of interfaces for reduced-order modelling: application to fluid-structure interaction coupling problems”, *International Journal of Computational Fluid Dynamics*, vol. 28, p. 158-169, 2014.

[J43] **A. Sartori, D. Baroli, A. Cammi A, D. Chiesa D, L. Luzzi, R. Ponciroli, E. Previtali, M. Ricotti, G. Rozza, M. Sisti.** “Comparison of a Modal Method and a Proper Orthogonal Decomposition approach for multi-group time-dependent reactor spatial kinetics”. *Annals of Nuclear Energy*, vol. 71, p. 217-229, 2014.

[J44] **F. Negri, A. Manzoni, G. Rozza.** “Reduced basis methods for parametrized optimal flow control problems for Stokes Equations”, *Computer and Mathematics with Applications*, Vol. 69(4), pp.319-336, 2015.

[J45] **F. Ballarin, A. Manzoni, A. Quarteroni, G. Rozza.** “Supremizer Stabilization of POD-Galerkin approximation of steady incompressible Navier-Stokes equations”, *International Journal Numerical Methods in Engineering*, Vol.102, pp.1136-1161, 2015.

[J46] **P. Chen, A. Quarteroni, G. Rozza.** “Multilevel and weighted reduced basis method for stochastic optimal control problems constrained by Stokes equations”, *Numerische Mathematik*, Vol. 133, p. 67-102, 2016.

[J47] **L. Iapichino, A. Quarteroni, G. Rozza.** “Reduced basis method and domain decomposition for elliptic problems in networks and complex parametrized geometries”, *Computer and Mathematics with Applications*, Vol. 71, p. 408-430, 2016.

[J48] **F. Ballarin and G. Rozza.** “POD–Galerkin monolithic reduced order models for parametrized fluid-structure interaction problems,” *International Journal for Numerical Methods in Fluids*, Vol. 82, pp.1010-1034, 2016.

[J49] **F. Ballarin, E. Faggiano, S. Ippolito, A. Manzoni, A. Quarteroni, G. Rozza, and R. Scrofani.** “Fast simulations of patient-specific haemodynamics of coronary artery bypass grafts based on a POD-Galerkin method and a vascular shape parametrization,” *Journal of Computational Physics*, Vol. 135, pp.609-628, 2016.

[J50] **A. Sartori, A. Cammi, L. Luzzi, and G. Rozza,** “Reduced basis approaches in time-dependent noncoercive settings for modelling the movement of nuclear reactor control rods”, *Communications in Computational Physics*, Vol. 20, pp. 23-59, 2016.

[J51] **S. Lorenzi, A. Cammi, L. Luzzi, G. Rozza.** “POD-Galerkin method for finite volume approximation of Navier–Stokes and RANS equations”, *Computer Methods in Applied Mechanics and Engineering*, Vol. 311, p. 151-179, 2016

[J52] **A. Sartori, A. Cammi, L. Luzzi, and G. Rozza,** “A multi-physics reduced order model for the analysis of lead fast reactor single channel,” *Annals of Nuclear Energy*, 87, 198-208, 2016.

[J53] **F. Salmoiraghi, F. Ballarin, L. Heltai, and G. Rozza**, “Isogeometric analysis-based reduced order modelling for incompressible linear viscous flows in parametrized shapes,” *AMOS: Advanced Modelling and Simulation in Engineering Sciences*, Special issue on MOR, Vol 3:21, 2016.

[J54] **I. Martini, B. Haasdonk, G. Rozza**, “Certified Reduced Basis Approximation for the Coupling of Viscous and Inviscid Parametrized Flow Models”, *Journal of Scientific Computing*, 1-23, in press, 2017.

[J55] **G. Pitton, A. Quaini, G. Rozza**, “Computational reduction strategies for the detection of steady bifurcations in incompressible fluid-dynamics: Applications to Coanda effect in cardiology”, *Journal of Computational Physics*, 344, 534-557, 2017.

[J56] **G. Pitton, G. Rozza**, “On the Application of Reduced Basis Methods to Bifurcation Problems in Incompressible Fluid Dynamics”, *Journal of Scientific Computing*, in press, 2017.

[J57] **F. Ballarin, E. Faggiano, A. Manzoni, A. Quarteroni, G. Rozza, S. Ippolito, C. Antona and R. Scrofani**, “Numerical modeling of hemodynamics scenarios of patient-specific coronary artery bypass grafts” *Biomechanics and Modeling in Mechanobiology*, pp.1-23, in press, 2017.

[J58] **S. Lorenzi, A. Cammi, L. Luzzi, G. Rozza**, “A reduced order model for investigating the dynamics of the Gen-IV LFR coolant pool”, *Applied Mathematical Modelling*, Vol. 46, pp.263-284, 2017.

[J59] **P. Chen, A. Quarteroni, G. Rozza**, “Reduced Order Methods”, *SIAM/ASA Journal of Uncertainty Quantification*, Review Paper, in press, 2017.

[J60] **M. Tezzele, F. Ballarin, G. Rozza**, “Dimension reduction in heterogeneous parametric spaces with application to naval engineering shape design problems”, *Advanced Modeling and Simulation in Engineering Sciences*, vol. 5, p. 1-19, 2018.

[J61] **G. Stabile, G. Rozza**, “Finite volume POD-Galerkin stabilised reduced order methods for the parametrised incompressible Navier–Stokes equations”, *Computers & Fluids*, vol. 173, p. 273-284, 2018.

[J62] **M. Strazzullo, F. Ballarin, R. Mosetti, G. Rozza**, “Model Reduction for Parametrized Optimal Control Problems in Environmental Marine Sciences and Engineering”, *SIAM Journal on Scientific Computing*, vol. 40, p. B1055-B1079, 2018.

[J63] **F. Salmoiraghi, A. Scardigli, H. Telib, G. Rozza**, “Free-form deformation, mesh morphing and reduced-order methods: enablers for efficient aerodynamic shape optimization”, *International Journal of Computational Fluid Dynamics*, vol. 32, p. 233-247, 2018.

[J64] **D. Torlo, F. Ballarin, G. Rozza**, “Stabilized Weighted Reduced Basis Methods for Parametrized Advection Dominated Problems with Random Inputs”, *SIAM/ASA Journal On Uncertainty Quantification*, vol. 6, p. 1475-1502, 2018.

[J65] **I. Martini, B. Haasdonk, G. Rozza**, “Certified Reduced Basis Approximation for the Coupling of Viscous and Inviscid Parametrized Flow Models”, *Journal of Scientific Computing*, vol. 74, p. 197-219, 2018.

[J66] **M. Tezzele, N. Demo, A. Mola, G. Rozza**, “An integrated data-driven computational pipeline with model order reduction for industrial and applied mathematics”, 2018.

[J67] **N. Demo, M. Tezzele, G. Rozza**, “PyDMD: Python Dynamic Mode Decomposition”, *Journal of Open Source Software*, 3(22), pp. 530, 2018.

[J68] **N. Demo, M. Tezzele, G. Rozza**, “EzYRB: Easy Reduced Basis method”, *Journal of Open Source Software*, 3(24), pp. 661, 2018.

- [J69] E. N. Karatzas, G. Stabile, L. Nouveau, G. Scovazzi, G. Rozza**, “A reduced basis approach for PDEs on parametrized geometries based on the shifted boundary finite element method and application to a Stokes flow”, *Computer Methods in Applied Mechanics and Engineering*, vol. 347, p. 568-587, 2019.
- [J70] L. Venturi, F. Ballarin, G. Rozza**, “A Weighted POD Method for Elliptic PDEs with Random Inputs”, *Journal of Scientific Computing*, vol. 81, p. 136-153, 2019.
- [J71] G. Stabile, F. Ballarin, G. Zuccarino, G. Rozza**, “A reduced order variational multiscale approach for turbulent flows”, *Advances in Computational Mathematics*, vol. 45, p. 2349-2368, 2019.
- [J72] N. Demo, M. Tezzele, G. Rozza**, “A non-intrusive approach for the reconstruction of POD modal coefficients through active subspaces”, *Comptes Rendus Mecanique*, vol. 347, p. 873-881, 2019.
- [J73] M. Girfoglio, A. Quaini, G. Rozza**, “A Finite Volume approximation of the Navier-Stokes equations with nonlinear filtering stabilization”, *Computers & Fluids*, vol. 187, p. 27-45, 2019.
- [J74] F. Pichi, G. Rozza**, “Reduced Basis Approaches for Parametrized Bifurcation Problems held by Non-linear Von Kármán Equations”, *Journal of Scientific Computing*, vol. 81, p. 112-135, 2019.
- [J75] M. Hess, A. Alla, A. Quaini, G. Rozza, M. Gunzburger**, “A localized reduced- order modeling approach for PDEs with bifurcating solutions.”, *Computer Methods in Applied Mechanics and Engineering*, vol. 351, p. 379- 403, 2019.
- [J76] F. Ballarin, A. D’amario, S. Perotto, G. Rozza**, “A POD-selective inverse distance weighting method for fast parametrized shape morphing”, *International Journal for Numerical Methods in Engineering*, vol. 117, p. 860-884, 2019.
- [J77] K. S. Star, G. Stabile, F. Belloni, G. Rozza, J. Degroote**, “Extension and comparison of techniques to enforce boundary conditions in Finite Volume POD-Galerkin reduced order models for fluid dynamic problems”, 2019.
- [J78] M. Nonino, F. Ballarin, G. Rozza, Y. Maday**, “Overcoming slowly decaying Kolmogorov n-width by transport maps: application to model order reduction of fluid dynamics and fluid–structure interaction problems”, 2019.
- [J79] S. Georgaka, G. Stabile, G. Rozza, M.J. Bluck**, “Parametric pod-galerkin model order reduction for unsteady-state heat transfer problems”, *COMMUNICATIONS IN COMPUTATIONAL PHYSICS*, vol. 27, p. 1-32, ISSN:1991-7120, doi: 10.4208/cicp.OA-2018-0207, 2020.
- [J80] M. Gadalla, M. Tezzele, A. Mola, G. Rozza**, “BladeX: Python Blade Morphing”, *The Journal of Open Source Software*, 4(34), pp. 1203, 2019.
- [J81] S. Busto, G. Stabile, G. Rozza, M. E. Vázquez-Cendón**, “POD-Galerkin reduced order methods for combined Navier-Stokes transport equations based on a hybrid FV-FE solver”, *Computers & Mathematics with Applications*, 2019.
- [J82] Z. Zainib, F. Ballarin, S. Frenes, P. Triverio, L. Jiménez-Juan, G. Rozza**, “Reduced order methods for parametric optimal flow control in coronary bypass grafts, toward patient-specific data assimilation”, *International Journal for Numerical Methods in Biomedical Engineering*, 2020.
- [J83] M. Tezzele, N. Demo, G. Stabile, A. Mola, G. Rozza G.**, “Enhancing CFD predictions in shape design problems by model and parameter space reduction”, *ADVANCED MODELING AND SIMULATION IN ENGINEERING SCIENCES*, vol. 7, p. 1-19, ISSN: 2213-7467, doi: 10.1186/s40323-020-00177-y, 2020.

[J84] **M. Tezzele, N. Demo, A. Mola, G. Rozza**, “PyGeM: Python Geometrical Morphing”, *Software Impacts*, pp. 100047, ISSN: 2665-9638, doi: <https://doi.org/10.1016/j.simpa.2020.100047>, 2020.

[J85] **M. Strazzullo, F. Ballarin, G. Rozza**, “POD–Galerkin Model Order Reduction for Parametrized Time Dependent Linear Quadratic Optimal Control Problems in Saddle Point Formulation”, *Journal of Scientific Computing*, 83(3), pp. 55, 2020.

[J86] **M. Strazzullo, F. Ballarin, G. Rozza**, “POD-Galerkin Model Order Reduction for Parametrized Nonlinear Time Dependent Optimal Flow Control: an Application to Shallow Water Equations”, ISSN: 0885-7474, doi: 10.1007/s10915-020-01232-x, 2020.

[J87] **M. Strazzullo, Z. Zainib, F. Ballarin, G. Rozza**, “Reduced order methods for parametrized non-linear and time dependent optimal flow control problems, towards applications in biomedical and environmental sciences”, in *Numerical Mathematics and Advanced Applications ENUMATH 2019*, 2020, pp. 841–850.

[J88] **G. Stabile, M. Zancanaro, G. Rozza**, “Efficient geometrical parametrization for finite-volume-based reduced order methods”, *INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING*, vol. 121, p. 2655-2682, ISSN: 0029-5981, doi: 10.1002/nme.6324, 2020.

[J89] **G. Rozza, M. H. Malik, N. Demo, M. Tezzele, M. Girfoglio, G. Stabile, A. Mola**, “Advances in reduced order methods for parametric industrial problems in computational fluid dynamics.” 2020, pp. 59-76.

[J90] **G. Rozza, M. Hess, G. Stabile, M. Tezzele, F. Ballarin**, “Basic Ideas and Tools for Projection-Based Model Reduction of Parametric Partial Differential Equations”, in *Handbook on Model Reduction*, P. Benner, S. Griwet-Talocia, A. Quarteroni, G. Rozza, W. H. A. Schilders, and L. M. Silveira (eds.), 2020.

[J91] **F. Romor, M. Tezzele, A. Lario, G. Rozza**, “Kernel-based Active Subspaces with application to CFD parametric problems using Discontinuous Galerkin method”, 2020.

[J92] **F. Pichi, A. Quaini, G. Rozza**, “A Reduced Order Modeling Technique to Study Bifurcating Phenomena: Application to the Gross–Pitaevskii Equation”, *SIAM JOURNAL ON SCIENTIFIC COMPUTING*, vol. 42, p.B1115-B1135, ISSN: 1064-8275, doi: 10.1137/20M1313106, 2020.

[J93] **S. Perotto, G. Rozza**, “Special Issue on Reduced Order Models in CFD”, *International Journal of Computational Fluid Dynamics*, 34(2), pp. 91-92, 2020.

[J94] **G. Ortali, N. Demo, G. Rozza**, “Gaussian process approach within a data-driven POD framework for fluid dynamics engineering problems”, Submitted, 2020.

[J95] **E. N. Karatzas, G. Rozza**, “A Reduced Order Model for a stable embedded boundary parametrized Cahn-Hilliard phase-field system based on cut finite elements”, 2020.

[J96] **E. N. Karatzas, M. Nonino, F. Ballarin, G. Rozza**, “A Reduced Order Cut Finite Element method for geometrically parameterized steady and unsteady Navier-Stokes problems”, 2020.

[J97] **E. N. Karatzas, F. Ballarin, G. Rozza**, “Projection-based reduced order models for a cut finite element method in parametrized domains”, *Computers & Mathematics with Applications*, 79(3), pp. 833–851, 2020.

[J98] **E. N. Karatzas, G. Stabile, L. Nouveau, G. Scovazzi, G. Rozza**, “A reduced-order shifted boundary method for parametrized incompressible Navier–Stokes equations”, *Computer Methods in Applied Mechanics and Engineering*, 370, pp. 113273, ISSN: 0045-7825, doi:10.1016/j.cma.2020.113273, 2020.

[J99] **S. Hijazi, G. Stabile, A. Mola, G. Rozza**, “Non-Intrusive Polynomial Chaos Method Applied to Problems in Computational Fluid Dynamics with a Comparison to Proper Orthogonal Decomposition”, in QUIET Selected Contributions, H. van Brummelen, A. Corsini, S. Perotto, and G. Rozza (eds.), Springer International Publishing, 2020.

[J100] **S. Hijazi, S. Ali, G. Stabile, F. Ballarin, G. Rozza**, “The Effort of Increasing Reynolds Number in Projection-Based Reduced Order Methods: From Laminar to Turbulent Flows”, in Numerical Methods for Flows: FEF 2017 Selected Contributions, H. van Brummelen, A. Corsini, S. Perotto, and G. Rozza (eds.), Springer International Publishing, pp. 245–264, 2020.

[J101] **S. Hijazi, G. Stabile, A. Mola, G. Rozza**, “Data-driven POD-Galerkin reduced order model for turbulent flows”, *Journal of Computational Physics*, 416, pp. 109513, ISSN: 0021-9991, doi: 10.1016/j.jcp.2020.109513, 2020.

[J102] **M. Hess, A. Quaini, G. Rozza**, “Reduced Basis Model Order Reduction for Navier-Stokes equations in domains with walls of varying curvature”, *International Journal of Computational Fluid Dynamics*, 34(2), pp. 119-126, ISSN: 1061-8562, doi: 10.1080/10618562.2019.1645328, 2020.

[J103] **M. W. Hess, A. Quaini, G. Rozza**, “A comparison of reduced-order modeling approaches for PDEs with bifurcating solutions”, 2020.

[J104] **M. W. Hess, A. Quaini, G. Rozza**, “A Spectral Element Reduced Basis Method for Navier–Stokes Equations with Geometric Variations”, in *Spectral and High Order Methods for Partial Differential Equations ICOSAHOM 2018*, 2020, pp. 561–571.

[J105] **M. Girfoglio, F. Ballarin, G. Infantino, F. Nicolò, A. Montalto, G. Rozza, R. Scrofani, M. Comisso, F. Musumeci**, “Non-intrusive PODI-ROM for patient-specific aortic blood flow in presence of a LVAD device”, *Medical Engineering and Physics*, doi: 10.1016/j.medengphy.2022.103849, 2022.

[J106] **S. Georgaka, G. Stabile, K. Star, G. Rozza, M. J. Bluck**, “A hybrid reduced order method for modelling turbulent heat transfer problems”, *Computers & Fluids*, 208, pp. 104615, 2020.

[J107] **F. Garotta, N. Demo, M. Tezzele, M. Carraturo, A. Reali, G. Rozza**, “Reduced Order Isogeometric Analysis Approach for PDEs in Parametrized Domains”, in *Lecture Notes in Computational Science and Engineering*, Springer International Publishing, pp. 153–170, 2020.

[J108] **S. Busto, G. Stabile, G. Rozza, M. E. Vázquez-Cendón**, “POD–Galerkin reduced order methods for combined Navier–Stokes transport equations based on a hybrid FV-FE solver”, *Computers and Mathematics with Applications*, 79(2), pp. 256-273, ISSN: 0898-1221, doi: 10.1016/j.camwa.2019.06.026, 2020.

[J109] **F. Ballarin, T. Chacón Rebollo, E. Delgado Ávila, M. Gómez Mármol, G. Rozza**, “Certified Reduced Basis VMS-Smagorinsky model for natural convection flow in a cavity with variable height”, *Computers & Mathematics with Applications*, 80(5), pp. 973-989, ISSN: 0898-1221, doi:10.1016/j.camwa.2020.05.013, 2020.

[J110] **S. Ali, F. Ballarin, G. Rozza**, “Stabilized reduced basis methods for parametrized steady Stokes and Navier-Stokes equations”, *Computers & Mathematics with Applications*, 2020.

[J111] **M. Zancanaro, F. Ballarin, S. Perotto, G. Rozza**, “Hierarchical model reduction techniques for flow modeling in a parametrized setting”, *Multiscale Modeling and Simulation*, 19(1), pp. 267-293, 2021.

[J112] **S. Star, G. Stabile, G. Rozza, J. Degroote**, “A POD-Galerkin reduced order model of a turbulent convective buoyant flow of sodium over a backward-facing step”, *APPLIED MATHEMATICAL MODELLING*, vol. 89, p. 486-503, ISSN: 0307-904X, doi: 10.1016/j.apm.2020.07.029, 2021.

[J113] **S. K. Star, B. Sanderse, G. Stabile, G. Rozza, J. Degroote**, “Reduced order models for the incompressible Navier-Stokes equations on collocated grids using a ‘discretize-then-project’ approach”, *International Journal for Numerical Methods in Fluids*, 93(8), pp. 2694-2722, 2021.

[J114] **N. V. Shah, M. Hess, G. Rozza**, “Discontinuous Galerkin Model Order Reduction of Geometrically Parametrized Stokes Equation”, in *Numerical Mathematics and Advanced Applications – ENUMATH 2019*, , vol. 139, 2021.

[J115] **F. Romor, M. Tezzele, G. Rozza**, “Multi-fidelity data fusion for the approximation of scalar functions with low intrinsic dimensionality through active subspaces”, in *PAMM*, 2021, pp. e202000349.

[J116] **M. Girfoglio, A. Quaini, G. Rozza**, “A POD-Galerkin reduced order model for a LES filtering approach”, *Journal of Computational Physics*, 436, 2021.

[J117] **N. Demo, M. Tezzele, A. Mola, G. Rozza**, “Hull shape design optimization with parameter space and model reductions, and self-learning mesh morphing”, *Journal of Marine Science and Engineering*, 9(2), pp. 1-22, 2021.

[J118] **N. Demo, M. Tezzele, G. Rozza**, “A Supervised Learning Approach Involving Active Subspaces for an Efficient Genetic Algorithm in High-Dimensional Optimization Problems”, *SIAM Journal on Scientific Computing*, 43(3), pp. B831–B853, 2021.

[J119] **N. Demo, G. Ortali, G. Gustin, G. Rozza, G. Lavini**, “An efficient computational framework for naval shape design and optimization problems by means of data-driven reduced order modeling techniques”, *Bollettino dell’Unione Matematica Italiana*, 14(1), pp. 211-230, 2021.

[J120] **M. Pintore, F. Pichi, M. Hess, G. Rozza, C. Canuto**, “Efficient computation of bifurcation diagrams with a deflated approach to reduced basis spectral element method”, *ADVANCES IN COMPUTATIONAL MATHEMATICS*, vol. 47, p. 1-39, ISSN: 1019-7168, doi: 10.1007/s10444-020-09827-6, 2021.

[J121] **M. Gadalla, M. Cianferra, M. Tezzele, G. Stabile, A. Mola, G. Rozza.**, “On the comparison of LES data-driven reduced order approaches for hydroacoustic analysis”, *COMPUTERS & FLUIDS*, vol. 216, ISSN: 0045-7930, doi:10.1016/j.compfluid.2020.104819, 2021.

[J122] **N. Demo, M. Tezzele, A. Mola, G. Rozza**, “Hull Shape Design Optimization with Parameter Space and Model Reductions, and Self-Learning Mesh Morphing”, *JOURNAL OF MARINE SCIENCE AND ENGINEERING*, vol. 9, p. 1-22, ISSN: 2077-1312, doi: 10.3390/jmse9020185, 2021.

[J123] **N. Demo, G. Ortali, G. Gustin, G. Rozza, and G. Lavini**, “An efficient Computational framework for naval shape design and optimization problems by means of data-driven reduced

order modeling techniques”, *Bolletino dell Unione Matematica Italiana*, 14(1), pp. 211-230, doi.org/10.1007/s40574-020-00263-4, 2021.

[J124] **N. Demo, M. Tezzele, and G. Rozza**, “A Supervised Learning Approach Involving Active Subspaces for an Efficient Genetic Algorithm in High-Dimensional Optimization Problems”, *SIAM Journal on Scientific Computing*, 43(3), pp. B831–B853, doi.org/10.1137/20M1345219, 2021.

[J125] **G. Carere, M. Strazzullo, F. Ballarin, G. Rozza, and R. Stevenson**, “A weighted POD-reduction approach for parametrized PDE-constrained optimal control problems with random inputs and applications to environmental sciences”, *Computers and Mathematics with Applications*, 102, pp. 261-276, doi.org/10.1016/j.camwa.2021.10.020, 2021.

[J126] **F. Andreuzzi, N. Demo, and G. Rozza**, “A dynamic mode decomposition extension for the forecasting of parametric dynamical systems”, *SIAM Journal on Applied Dynamical Systems*, Vol. 22, Issue 3, doi.org/10.48550/arXiv.2110.09155, 2021.

[J127] **P. Benner, S. Grivet-Talocia, A. Quarteroni, G. Rozza, W. Schilders, L. M. Silveira**, “Preface to the first volume of model order reduction”, *System and Data-Driven Methods and Algorithms*, pages V-VIII, doi. 10.1515/9783110498967-201, 2021.

[J128] **M. Tezzele, N. Demo, A. Mola, and G. Rozza**, “An integrated data-driven computational pipeline with model order reduction for industrial and applied mathematics”, in *Novel Mathematics Inspired by Industrial Challenges*, M. Günther and W. Schilders (eds.), Springer International Publishing, doi.org/10.48550/arXiv.1810.12364, 2022.

[J129] **M. Nonino, F. Ballarin, G. Rozza, and Y. Maday**, “Projection based semi-implicit partitioned Reduced Basis Method for non parametrized and parametrized Fluid-Structure Interaction problems”, doi.org/10.48550/arXiv.2201.03236, 2022.

[J130] **M. W. Hess, A. Quaini, and G. Rozza**, “A comparison of reduced-order modeling approaches using artificial neural networks for PDEs with bifurcating solutions”, *ETNA – Electronic Transactions on Numerical Analysis*, 56, pp. 52–65, doi:10.1553/etna_vol56s52, 2022.

[J131] **M. W. Hess and G. Rozza**, “Model Reduction Using Sparse Polynomial Interpolation for the Incompressible Navier-Stokes Equations”, <https://doi.org/10.48550/arXiv.2201.03228>, 2022.

[J132] **M. W. Hess, A. Lario, G. Mengaldo, and G. Rozza**, “Reduced order modeling for spectral element methods: current developments in Nektar++ and further perspectives”, doi.org/10.48550/arXiv.2201.05404, 2022.

[J133] **M. W. Hess, A. Quaini, and G. Rozza**, “Data-Driven Enhanced Model Reduction for Bifurcating Models in Computational Fluid Dynamics”, *World Congress in Computational Mechanics and ECCOMAS Congress*, doi.org/10.48550/arXiv.2202.09250, 2022.

[J134] **M. W. Hess, A. Quaini, and G. Rozza**, “A Data-Driven Surrogate Modeling Approach for Time-Dependent Incompressible Navier-Stokes Equations with Dynamic Mode Decomposition and Manifold Interpolation”, *Advances in Computational Mathematics*, Vol. 49, Issue 2, doi.org/10.48550/arXiv.2201.10872, 2022.

[J135] **N. Giuliani, M. W. Hess, A. DeSimone, G. Rozza**, “MicroROM: An Efficient and Accurate Reduced Order Method to Solve Many-Query Problems in Micro-Motility”, <https://doi.org/10.1051/m2an/2022038>, 2022.

[J136] **M. Girfoglio, A. Quaini, and G. Rozza**, “A novel Large Eddy Simulation model for the Quasi-Geostrophic Equations in a Finite Volume setting”, *Journal of Computational and Applied Mathematics*, Vol 418, arXiv, <https://doi.org/10.48550/arXiv.2202.00295>, 2022.

[J137] **M. Girfoglio, A. Quaini, and G. Rozza**, “A POD-Galerkin reduced order model for the Navier-Stokes equations in stream function-vorticity formulation”, *Computers and Fluids*, Vol. 244, doi. 10.1016/j.compfluid.2022.105536, 2022.

[J138] **F. Ballarin, G. Rozza, and M. Strazzullo**, “Chapter 9 – Space-time POD-Galerkin approach for parametric flow control”, in *Numerical Control: Part A*, E. Trélat and E. Zuazua (eds.), Elsevier, vol. 23, pp. 307-338, <https://doi.org/10.1016/bs.hna.2021.12.009>, 2022.

[J139] **G. Ortali, N. Demo, G. Rozza**, “A Gaussian Process Regression approach within a data-driven POD framework for engineering problems in fluid dynamics”, *Mathematics and Engineering*, Vol.4 Issue 3, pages 1-16, doi. 10.3934/mine.2022021, 2022.

[J140] **N.V. Shah, M. Girfoglio, G. Rozza**, “Thermomechanical Modelling for Industrial Applications”, *Mathematics in Industry*, Vol. 39, pages 211-220, doi. 10.1007/978-3-031-11818-0_28, 2022.

[J141] **M. Strazzullo, F. Ballarin, G. Rozza**, “POD-Galerkin model order reduction for parametrized nonlinear time-dependent optimal flow control: An application to shallow water equations”, *Journal of Numerical Mathematics*, Vol. 30, Issue 1, pages 63-85, doi. 10.1515/jnma-2020-0098, 2022.

[J142] **D. Papapicco, N. Demo, M. Girfoglio, G. Stabile, G. Rozza**, “The Neural Network shifted-proper orthogonal decomposition: A machine learning approach for non-linear reduction of hyperbolic equations”, *Computer Methods in Applied Mechanics and Engineering*, Vol. 393, doi. 10.1016/j.cma.2022.114687, 2022.

[J143] **J.S. Hesthaven, C. Pagliantini, G. Rozza**, “Reduced basis methods for time-dependent problems”, *Acta Numerica*, Vol. 31, pages 265-345, doi. 10.1017/S0962492922000058, 2022.

[J144] **N. E. Karatzas, M. Nonino, F. Ballarin, G. Rozza**, “A Reduced Order Cut Finite Element method for geometrically parametrized steady and unsteady Navier–Stokes problems”, *Computers and Mathematics with Applications*, Vol. 116, pages 140-160, doi. 10.1016/j.camwa.2021.07.016, 2022.

[J145] **F. Pichi, M. Strazzullo, F. Ballarin, G. Rozza**, “Driving bifurcating parametrized nonlinear PDEs by optimal control strategies: Application to Navier-Stokes equations with model order reduction”, *ESAIM: Mathematical Modelling and Numerical Analysis*, Vol. 56, Issue 4, pages 1361-1400, doi. 10.1051/m2an/2022044, 2022.

[J146] **G. Ortali, A. Corbetta, G. Rozza, F. Toschi**, “Numerical proof of shell model turbulence closure”, *Physical Review Fluids*, Vol. 7, Issue 8, doi. 10.1103/PhysRevFluids.7.L082401, 2022.

[J147] **M. Strazzullo, M. Girfoglio, F. Ballarin, T. Iliescu, G. Rozza**, “Consistency of the full and reduced order models for evolve-filter-relax regularization of convection-dominated, marginally-resolved flows”, *International Journal for Numerical Methods in Engineering*, Vol 123, Issue 14, pages. 3148-3178, doi. 10.1002/nme.6942, 2022.

[J148] **X. Zeng, G. Stabile, N. E. Karatzas, G. Scovazzi, G. Rozza**, “Embedded domain Reduced Basis Models for the shallow water hyperbolic equations with the Shifted Boundary

Method”, *Computer Methods in Applied Mechanics and Engineering*, Vol. 398, doi. 10.1016/j.cma.2022.115143, 2022.

[J149] M. Girfoglio, A. Quaini, G. Rozza, “A POD-Galerkin reduced order model for the Navier–Stokes equations in stream function-vorticity formulation”, *Computers and Fluids*, Vol. 244, doi. 10.1016/j.compfluid.2022.105536, 2022.

[J150] L. Pavarino, G. Rozza, S. Scacchi, C. Vergara, “Advances in cardiovascular modeling and simulation”, *International Journal for Numerical Methods in Biomedical Engineering*, Vol. 38, Issue 9, doi. 10.1002/cnm.3631, 2022.

[J151] S. Cuomo, V. S. Di Cola, F. Giampaolo, G. Rozza, M. Raissi, F. Piccialli, “Scientific Machine Learning Through Physics–Informed Neural Networks: Where we are and What’s Next”, *Journal of Scientific Computing*, Vol. 92, Issue 3, doi. 10.1007/s10915-022-01939-z, 2022.

[J152] M. Khamlich, F. Pichi, G. Rozza, “Model order reduction for bifurcating phenomena in fluid-structure interaction problems”, *International Journal for Numerical Methods in Fluids*, Vol. 94, Issue 10, doi. 10.1002/fld.5118, 2022.

[J153] A. Lario, R. Maulik, O.T. Schmidt, G. Rozza, G. Mengaldo, “Neural-network learning of SPOD latent dynamics”, *Journal of Computational Physics*, Vol. 468, doi. 10.1016/j.jcp.2022.111475, 2022.

[J154] B. Koc, C. Mou, H. Liu, Z. Wang, G. Rozza, T. Iliescu, “Verifiability of the Data-Driven Variational Multiscale Reduced Order Model”, *Journal of Scientific Computing*, Vol. 93, Issue 2, doi. 10.1007/s10915-022-02019-y, 2022.

[J155] N. V. Shah, M. Girfoglio, P. Quintela, G. Rozza, A. Lengomin, F. Ballarin, P. Barral, “Finite element based Model Order Reduction for parametrized one-way coupled steady state linear thermo-mechanical problems”, *Finite Elements in Analysis and Design*, Vol. 212, doi. 10.1016/j.finel.2022.103837, 2022.

[J156] F. Romor, M. Tezzele, A. Lario, G. Rozza, “Kernel-based active subspaces with application to computational fluid dynamics parametric problems using the discontinuous Galerkin method”, *International Journal for Numerical Methods in Engineering*, Vol. 123, Issue 23, pages 6000-6027, doi. 10.1002/nme.7099, 2022.

[J157] D. Coscia, L. Meneghetti, N. Demo, G. Stabile, G. Rozza, “A continuous convolutional trainable filter for modelling unstructured data”, *Computational Mechanics*, Vol. 72, Issue 2, doi. 10.1007/s00466-023-02291-1, 2023.

[J158] M. Girfoglio, A. Quaini, G. Rozza, “A novel Large Eddy Simulation model for the Quasi-Geostrophic equations in a Finite Volume setting”, *Journal of Computational and Applied Mathematics*, Vol. 418, doi. 10.1016/j.cam.2022.114656, 2023.

[J159] A. Ivagnes, G. Stabile, A. Mola, T. Iliescu, G. Rozza, “Pressure data-driven variational multiscale reduced order models”, *Journal of Computational Physics*, Vol. 476, doi. 10.1016/j.jcp.2022.111904, 2023.

[J160] F. Romor, G. Stabile, G. Rozza, “Non-linear Manifold Reduced-Order Models with Convolutional Autoencoders and Reduced Over-Collocation Method”, *Journal of Scientific Computing*, Vol. 94, Issue 3, doi. 10.1007/s10915-023-02128-2, 2023.

[J161] M. Tezzele, L. Fabris, M. Sidari, M. Sicchiero, G. Rozza, “A multifidelity approach coupling parameter space reduction and nonintrusive POD with application to structural optimization of passenger ship hulls”, *International Journal for Numerical Methods in Engineering*, Vol. 124, Issue 5, pages 1193-1210, doi. 10.1002/nme.7159, 2023.

[J162] U. E. Morelli, P. Barral, P. Quintela, G. Rozza, G. Stabile, “Novel methodologies for solving the inverse unsteady heat transfer problem of estimating the boundary heat flux in continuous casting molds”, *International Journal for Numerical Methods in Engineering*, Vol. 124, Issue 6, pages 1344-1380, doi. 10.1002/nme.7167, 2023.

[J163] F. Pichi, F. Ballarin, G. Rozza, J. S. Hesthaven, “An artificial neural network approach to bifurcating phenomena in computational fluid dynamics”, *Computers and Fluids*, Vol. 254, doi. 10.1016/j.compfluid.2023.105813, 2023.

[J164] A. Ivagnes, N. Demo, G. Rozza, “Reduced Order Modelling for Inverse Problems: Neural Networks for Boundary Parametrization, Dimensionality Reduction and Solution Manifold Approximation”, *Journal of Scientific Computing*, Vol.95, Issue 1, doi. 10.1007/s10915-023-02142-4, 2023.

[J165] A. Ivagnes, G. Stabile, A. Mola, T. Iliescu, G. Rozza, “Hybrid data-driven closure strategies for reduced order modeling”, *Applied Mathematics and Computation*, Vol. 448, doi. 10.1016/j.amc.2023.127920, 2023.

[J166] N. V. Shah, M. Girfoglio, P. Quintela, G. Rozza, A. Lengomin, F. Ballarin, P. Barral, “Finite element based Model Order Reduction for parametrized one-way coupled steady state linear thermo-mechanical problems”, *Finite Elements in Analysis and Design*, Vol. 212, doi. 10.1016/j.finel.2022.103837, 2023.

[J167] M. Hess, G. Rozza, “Model Reduction Using Sparse Polynomial Interpolation for the Incompressible Navier–Stokes Equations”, *Vietnam Journal of Mathematics*, Vol. 51, Issue 1, doi. 10.1007/s10013-022-00590-3, 2023.

[J168] M. Nonino, F. Ballarin, G. Rozza, Y. Maday, “Projection Based Semi-Implicit Partitioned Reduced Basis Method for Fluid-Structure Interaction Problems”, *Journal of Scientific Computing*, Vol. 94 Issue 1, doi. 10.1007/s10915-022-02049-6, 2023.

[J169] A. Sheidani, S. Salavatidezfouli, G. Stabile, G. Rozza, “Assessment of URANS and LES methods in predicting wake shed behind a vertical axis wind turbine”, *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 232, doi. 10.1016/j.jweia.2022.105285, 2023.

[J170] P. Siena, M. Girfoglio, F. Ballarin, G. Rozza, “Data-Driven Reduced Order Modelling for Patient-Specific Hemodynamics of Coronary Artery Bypass Grafts with Physical and Geometrical Parameters”, *Journal of Scientific Computing*, Vol. 94, Issue 2, doi. 10.1007/s10915-022-02082-5, 2023.

[J171] M. Girfoglio, A. Quaini, G. Rozza, “A linear filter regularization for POD-based reduced-order models of the quasi-geostrophic equations”, *Comptes Rendus – Mécanique*, Vol. 351, doi. 10.5802/crmeca.183, 2023.

[J172] M. Hess, A. Lario, G. Mengaldo, G. Rozza, “Reduced Order Modeling for Spectral Element Methods: Current Developments in Nektar++ and Further Perspectives”, *Lecture Notes in Computational Science and Engineering*, Vol. 137, doi. 10.1007/978-3-031-20432-6_23, 2023.

[J173] E. Donadini, M. Strazzullo, M. Tezzele, G. Rozza, “A Data-Driven Partitioned Approach for the Resolution of Time-Dependent Optimal Control Problems with Dynamic

Mode Decomposition”, Lecture Notes in Computational Science and Engineering, Vol. 137, doi. 10.1007/978-3-031-20432-6_13, 2023.

[J174] **A. Ivagnes, N. Demo, G. Rozza**, “Towards a Machine Learning Pipeline in Reduced Order Modelling for Inverse Problems: Neural Networks for Boundary Parametrization, Dimensionality Reduction and Solution Manifold Approximation”, Journal of Scientific Computing, Vol. 95, Issue 1, doi. 10.1007/s10915-023-02142-4, 2023.

[175] **M. Girfoglio, A. Quaini, G. Rozza**, “Validation of an OpenFOAM®-based solver for the Euler equations with benchmarks for mesoscale atmospheric modeling”, AIP Advances, Vol. 13, Issue 5, doi. 10.1063/5.0147457, 2023.

[J176] **F. Mohammadzadeh, S.G. Georgiev, G. Rozza, E. Tohidi**, “Numerical solution of ψ -Hilfer fractional Black–Scholes equations via space–time spectral collocation method”, Alexandria Engineering Journal, Vol. 71, doi. 10.1016/j.aej.2023.03.007, 2023.

[J177] **M. Girfoglio, A. Quaini, G. Rozza**, “A hybrid projection/data-driven reduced order model for the Navier-Stokes equations with nonlinear filtering stabilization”, Journal of Computational Physics, Vol. 486, doi. 10.1016/j.jcp.2023.112127, 2023.

[J178] **N. Demo, M. Strazzullo, G. Rozza**, “An extended physics informed neural network for preliminary analysis of parametric optimal control problems”, Computers and Mathematics with Applications, Vol. 143, doi. 10.1016/j.camwa.2023.05.004, 2023.

[J179] **A. Sheidani, S. Salavatidezfouli, G. Stabile, M.G. Gerdroodbary, G. Rozza**, “Assessment of icing effects on the wake shed behind a vertical axis wind turbine”, Physics of Fluids, Vol. 35, Issue 9, doi. 10.1063/5.0169102, 2023.

[J180] **A. Mola, N. Giuliani, O. Crego, G. Rozza**, “A unified steady and unsteady formulation for hydrodynamic potential flow simulations with fully nonlinear free surface boundary conditions”, Applied Mathematical Modelling, Vol. 122, doi. 10.1016/j.apm.2023.06.001, 2023.

[J181] **L. Meneghetti, N. Demo, G. Rozza**, “A dimensionality reduction approach for convolutional neural networks”, Applied Intelligence, Vol. 53, Issue 19, doi. 10.1007/s10489-023-04730-1, 2023.

[J182] **A. Hajisharifi, F. Romanò, M. Girfoglio, A. Beccari, D. Bonanni, G. Rozza**, “A non-intrusive data-driven reduced order model for parametrized CFD-DEM numerical simulations”, Journal of Computational Physics, Vol. 491, doi. 10.1016/j.jcp.2023.112355, 2023.

[J183] **I.C. Gonnella, M. Hess, G. Stabile, G. Rozza**, “A two-stage deep learning architecture for model reduction of parametric time-dependent problems” Computers and Mathematics with Applications, Vol. 149, doi. 10.1016/j.camwa.2023.08.026, 2023.

[J184] **N. Clinco, M. Girfoglio, G. Rozza**, “Filter stabilization for the mildly compressible Euler equations with application to atmosphere dynamics simulations”, Computers and Fluids, Vol. 266, doi. 10.1016/j.compfluid.2023.106057, 2023.

[J185] **N. Demo, M. Tezzele, G. Rozza**, “A DeepONet multi-fidelity approach for residual learning in reduced order modeling”, Advanced Modeling and Simulation in Engineering Sciences, Vol. 10, Issue 1, doi. 10.1186/s40323-023-00249-9, 2023.

[J186] **M. Khamlich, G. Stabile, G. Rozza, L. Kornyei, Z. Horvath**, “A physics-based reduced order model for urban air pollution prediction”, Computer Methods in Applied Mechanics and Engineering, Vol. 417, doi. 10.1016/j.cma.2023.116416, 2023.

[J187] **I. Prusak, M. Nonino, D. Torlo, F. Ballarin, G. Rozza**, “An optimisation–based domain–decomposition reduced order model for the incompressible Navier–Stokes equations”, *Computers and Mathematics with Applications*, Vo.. 151, doi. 10.1016/j.camwa.2023.09.039, 2023.

[J188] **F. Key, M.von Danwitz, F. Ballarin, G. Rozza**, “Model order reduction for deforming domain problems in a time-continuous space-time setting”, *International Journal for Numerical Methods in Engineering*, Vol. 124, Issue 23, doi. 10.1002/nme.7342, 2023.

[J189] **F. Romor, M. Tezzele, M. Mrosek, C. Othmer, G. Rozza**, “Multi-fidelity data fusion through parameter space reduction with applications to automotive engineering”, *International Journal for Numerical Methods in Engineering*, Vol. 124, Issue 23, doi. 10.1002/nme.7349, 2023.

[J190] **A. Hajisharifi, M. Girfoglio, A. Quaini, G. Rozza**, “A comparison of data-driven reduced order models for the simulation of mesoscale atmospheric flow”, *Finite Elements in Analysis and Design*, Vol. 228, doi. 10.1016/j.finel.2023.104050, 2024.

[J191] **A. Ivagnes, N. Demo, G. Rozza**, “A shape optimization pipeline for marine propellers by means of reduced order modeling techniques”, *International Journal for Numerical Methods in Engineering*, doi. <https://doi.org/10.1002/nme.7426>, 2024;

[J192] **M. Teruzzi, N. Demo, G. Rozza**, “A graph-based framework for complex system simulating and diagnosis with automatic reconfiguration”, *Mathematics In Engineering*, 6(1), pp. 28–44, doi. <https://doi.org/10.3934/mine.2024002>, 2024;

[J193] **G. Padula, F. Romor, G. Stabile, G. Rozza**, “Generative models for the deformation of industrial shapes with linear geometric constraints: Model order and parameter space reductions”, *Computer Methods in Applied Mechanics and Engineering*, Vol. 423, doi. <https://doi.org/10.1016/j.cma.2024.116823>, 2024;

[J194] **D. Coscia, N. Demo, G. Rozza**, “Generative adversarial reduced order modelling” *Scientific Reports*, 14, doi. <https://doi.org/10.1038/s41598-024-54067-z>, 2024;

[J195] **J.R. Bravo, G. Stabile, M. Hess, J.A. Hernandez, R. Rossi, G. Rozza**, “Geometrically parametrised reduced order models for studying the hysteresis of the Coanda effect in finite element-based incompressible fluid dynamics”, *Journal of Computational Physics*, Volume 509, doi. 10.1016/j.jcp.2024.113058, 2024;

[J196] **S. Salavatidezfouli, S. Barzegar, A. Sheidani, A. Hajisharifi, M. Girfoglio, G. Stabile, G. Rozza**, “Effect of particle aspect ratio in targeted drug delivery in abdominal aortic aneurysm”, *European Journal of Mechanics, B/Fluids*, Volume 106, Pages 181 – 196, doi. 10.1016/j.euromechflu.2024.04.009, 2024;

[J197] **N. Tonicello, A. Lario, G. Rozza, G. Mengaldo**, “Non-intrusive reduced order models for the accurate prediction of bifurcating phenomena in compressible fluid dynamics”, *Computers and Fluids*, Volume 278, doi. 10.1016/j.compfluid.2024.106307, 2024;

[J198] **F. Romor, M. Tezzele, G. Rozza** “A Local Approach to Parameter Space Reduction for Regression and Classification Tasks”, *Journal of Scientific Computing*, Volume 99, Issue 3, doi. 10.1007/s10915-024-02542-0, 2024;

[J199] **A. Ivagnes, N. Tonicello, P. Cinnella, G. Rozza**, “Enhancing non-intrusive reduced-order models with space-dependent aggregation methods”, *Acta Mechanica*, doi. 10.1007/s00707-024-04007-9, 2024;

[J200] C. Balzotti, P. Siena, M. Girfoglio, G. Stabile, G. Duenas-Pamplona, J. Sierra-Pallares, I. Amat-Santos, G. Rozza, “A reduced order model formulation for left atrium flow: an atrial fibrillation case”, *Biomechanics and Modeling in Mechanobiology*, doi. 10.1007/s10237-024-01847-1, 2024;

[J201] F. Zoncolan, M. Strazzullo, G. Rozza, “A Streamline Upwind Petrov-Galerkin Reduced Order Method for Advection-Dominated Partial Differential Equations Under Optimal Control”, *Computational Methods in Applied Mathematics*, doi. 10.1515/cmam-2023-0171, 2024;

[J202] A. Hajisharifi, R. Halder, M. Girfoglio, A. Beccari, D. Bonanni, G. Rozza, “An LSTM-enhanced surrogate model to simulate the dynamics of particle-laden fluid systems”, *Computers and Fluids*, Volume 280, doi. 10.1016/j.compfluid.2024.106361, 2024;

[J203] I. Prusak, D. Torlo, M. Nonino, G. Rozza, “An optimisation-based domain-decomposition reduced order model for parameter-dependent non-stationary fluid dynamics problems”, *Computers and Mathematics with Applications*, Volume 166, Pages 253 – 268, doi. 10.1016/j.camwa.2024.05.004, 2024;

[J204] D. Roznowich, G. Stabile, N. Demo, D. Fransos, G. Rozza, “Large-scale graph-machine-learning surrogate models for 3D-flowfield prediction in external aerodynamics”, *Advanced Modeling and Simulation in Engineering Sciences*, Volume 11, Issue 1, doi. 10.1186/s40323-024-00259-1, 2024;

Books

[B1] A.T. Patera, G. Rozza. “Reduced basis approximation and a posteriori error estimation for parametrized partial differential equations”, with software library annexed, available on line at <http://augustine.mit.edu>. *MIT Pappalardo Monograph in Mechanical Engineering*, 2007.

[B2] D. Ambrosi, A. Quarteroni, G. Rozza (eds). “Modelling of Physiological Flows”. *MS&A Series*, Vol. 5, Springer, Milano, 2011.

[B3] A. Quarteroni, G. Rozza (eds). “Reduced Order Methods for Modelling and Computational Reduction”. *MS&A Series*, Vol. 9, Springer, Milano, 2013.

[B4] J. Hesthaven, G. Rozza, B. Stamm. “Certified Reduced Basis Methods for Parametrized PDEs”. *Briefs in Mathematics*, BCAM series, Springer, 2015.

[B5] P. Benner, M. Ohlberger, A.T.Patera, G. Rozza, K. Urban (Eds). “Model Reduction of Parametrized Systems”. *MS&A Series*, Vol. 17, Springer, Milano, 2017.

[B6] D. Boffi, L.F. Pavarino, G. Rozza, S. Scacchi, C. Vergara. “Mathematical and Numerical Modeling of the Cardiovascular System and Application”, *SEMA SIMAI Springer series*, Springer, 2018

[B7] E.H. van Brummelen, A. Corsini, S. Perotto, G. Rozza. “Numerical Method for Flows: Fef 2017 Selected Contributions”, Springer, 2020.

[B8] M. D’Elia, M. Gunzburger, G. Rozza. “Quantification of Uncertainty: Improving Efficiency and Technology”, *QUIET Selected Contribution*, Springer, 2020

[B9] P. Benner, S. Grivet-T., A. Quarteroni, G. Rozza, M. Schilders, L. M. Silveira. “Volume 1 System- and Data-Driven Methods and Algorithms”, Part of the multi-volume work *Model Order Reduction*, De Gruyter, 2021.

[B10] **P. Benner, S. Grivet-T., A. Quarteroni, G. Rozza, M. Schilders, L. M. Silveira.** “Volume 2 Snapshot-Based Methods and Algorithms”, Part of the multi-volume work Model Order Reduction, De Gruyter, 2021.

[B11] **P. Benner, S. Grivet-T., A. Quarteroni, G. Rozza, M. Schilders, L. M. Silveira.** “Volume 3 Applications”, Part of the multi-volume work Model Order Reduction, De Gruyter, 2021.

[B12] **G. Rozza, G. Stabile, F. Ballarin,** “Advanced Reduced Order Methods and Applications in Computational Fluid Dynamics”, Computational Science and Engineering, SIAM, 2022;

[B13] **G. Rozza, F. Ballarin, L. Scandurra, F. Pichi,** ““Real Time Reduced Order Computational Mechanics - Parametric PDEs Worked Out Problems”, Springer, 2024.

Conference Proceedings/Paper (* with review)

[C1]* **G. Rozza.** “Real-Time Reduced Basis Techniques for Arterial Bypass Geometries”. *Computational Fluids and Solids Mechanics*, K.J. Bathe Ed. (Elsevier, Amsterdam, The Netherlands), pp.1283-1288, 2005. (ISBN: 0-08-044481-6)

[C2]* **G. Rozza.** “Real-time reduced basis solutions for Navier-Stokes equations: optimization of parametrized bypass configurations” ECCOMAS CFD 2006 Proceedings on CD, P. Wesseling, E. Onate, J. Periaux Eds. (TU Delft, The Netherlands), 2006. (ISBN: 90-9020970-0)

[C3] **A. Quarteroni, G. Rozza.** “Tecniche a basi ridotte per l'ottimizzazione di configurazioni di innesto per bypass coronarici”. In *Quaderni Incontri di studio* N.39, Un grande matematico dell'800: omaggio a Eugenio Beltrami 1835 – 1900. *Istituto Lombardo Accademia di Scienze e Lettere*, Milan, Italy, 2006, pp. 225-238. (ISBN 978-88-7916-359-0, LED, Milano).

[C4] **A. Quarteroni, L. Bonaventura, L. Dede', E. Miglio, A. Quaini, M. Restelli, G. Rozza, F. Saleri.** “Modellistica Matematica in Problemi Ambientali”. *Quaderni Incontri di Studio* N.42, *Istituto Lombardo, Accademia di Scienze e Lettere*, Milan, Italy, 2007.

[C5]* **G. Rozza,** “An Introduction to Reduced Basis Method for Parametrized PDEs”. SIMAI Conference 2008, Rome, Italy. Contributed Paper, Applied and Industrial Mathematics in Italy, Vol. III, Series on Advances in Mathematics for Applied Sciences, vol. 82, pp. 508-519, WorldScientific, Singapore, 2009.

[C6]* **G. Rozza, D.B.P. Huynh, C.N. Nguyen, A.T. Patera,** “Real-Time Reliable Simulation of Heat Transfer Phenomena”, Proceedings of ASME-HT 2009 Conference, July 2009, S. Francisco, US. Paper HT2009-88212.

[C7]* **G. Rozza, C.N. Nguyen, A.T. Patera, S. Deparis,** “Reduced Basis Methods and A Posteriori Error Estimators for Heat Transfer Problems”, Proceedings of ASME-HT 2009 Conference, July 2009, S. Francisco, US. Paper HT2009-88211.

[C8] **T. Lassila, G. Rozza,** “Model Reduction of steady Fluid-Structure Interaction problems with free-form deformations and reduced basis methods” Proceedings of 10th Finnish Mechanics Days, Jyväskylä, pp. 454–465, 2009.

[C9]* **G. Rozza, T. Lassila, A. Manzoni,** “Reduced basis approximation for shape optimization in thermal flows with a parametrized polynomial geometric map”. Selected papers from the ICOSAHOM 09 Conference, NTU Trondheim, Norway, 22-26 June 2009. In Spectral and High Order Methods for PDEs, J. Hesthaven and E. Ronquist Eds., pp. 307-316, *Lecture Notes in*

Computational Science and Engineering, Vol. 76, Springer, 2010.

[C10]* **G. Rozza, A. Manzoni**, “Model Order Reduction by geometrical parametrization for shape optimization in computational fluid dynamics” Proceedings of ECCOMAS CFD Conference, Lisbon, Portugal, J. Pereira and A. Sequeira Eds., June 2010.

[C11]* **G. Rozza, T. Lassila, A. Manzoni**, “Reduction strategies for shape dependent inverse problems in haemodynamics”, in *System Modelling and Optimization*, p. 397-406, IFIP AICT 391, Springer, 2012.

[C12]* **G. Rozza, A. Manzoni, F. Negri**, “Reduction strategies for PDE-constrained optimization problems in haemodynamics”, Proceedings of ECCOMAS Congress, 2012, Vienna, Austria, pp. 1748-1769, September 10-14, 2012.

[C13]* **P. Pacciarini P, G. Rozza**. “Stabilized reduced basis method for parametrized scalar advection-diffusion problems at higher Peclet number: roles of the boundary layers and inner fronts”, Proceedings of the jointly organized 11th World Congress on Computational Mechanics - WCCM XI, 5th European Congress on Computational Mechanics - ECCM V, 6th European Congress on Computational Fluid Dynamics - ECFD V. p. 5614-5624, Barcelona, 2014.

[C14]* **A. Sartori, D. Baroli, A Cammi, L. Luzzi, G. Rozza**. “A reduced Order Model for multi-group time-dependent parametrized reactor spatial kinetics”, Proceedings of the 2014 22nd International Conference on Nuclear Engineering, ICONE 22, July 7-11, 2014, Prague, Czech Republic. ICONE22-30707, New York: ASME - American Society of Mechanical Engineers, Prague, 7-11 July 2014.

[C15]* **L. Iapichino, A. Quarteroni, G. Rozza, and S. Volkwein**. “Reduced basis method for the Stokes equations in decomposable domains using greedy optimization.” Proceedings of *ECMI European Conference Mathematics in Industry*, Taormina, Italy, June 2014, pp. 1-7, ECMI book subseries of Mathematics in Industry, Springer, 2014.

[C16]* **F. Salmoiraghi, F. Ballarin, G. Corsi, A. Mola, M. Tezzele, and G. Rozza**, “Advances in geometrical parametrization and reduced order models and methods for computational fluid dynamics problems in applied sciences and engineering: overview and perspectives,” in Proceedings of the *ECCOMAS Congress 2016, VII European Conference on Computational Methods in Applied Sciences and Engineering*, Crete, Greece, June 2016.

[C17]* **M. Tezzele, N. Demo, M.G.A.S. Gadalla, A. Mola, G. Rozza**, “Model order reduction by means of active subspaces and dynamic mode decomposition for parametric hull shape design hydrodynamics”, Proceedings of *NAV 2018: 19th International Conference on Ship & Maritime Research*. p. 569-576, Amsterdam, Netherlands, IOS Press, 2018.

[C18]* **N. Demo, M. Tezzele, A. Mola, G. Rozza**, “An efficient shape parametrisation by free-form deformation enhanced by active subspace for hull hydrodynamic ship design problems in open source environment”, Proceedings of *The Twenty- eighth (2018) International Ocean and Polar Engineering Conference*, vol. 2018, p. 565-572, Mountain View, CA, International Society of Offshore and Polar Engineers, Sapporo, Japan, 15 June 2018.

[C19]* **D. Cangelosi, A. Bonvicini, M. Nardo, A. Mola, A. Marchese, M. Tezzele, G. Rozza**, “SRtP 2.0 — The Evolution of the Safe Return to Port Concept”, Proceedings of *NAV 2018: 19th International Conference on Ship and Maritime Research*. p. 665-672, Amsterdam: IOS Press, Trieste June 2018.

[C20]* **N. Demo, M. Tezzele, G. Giustin, G. Lavini, G. Rozza**, “Shape Optimization by means of Proper Orthogonal Decomposition and Dynamic Mode Decomposition”, Proceedings of

NAV 2018: 19th International Conference on Ship and Maritime Research. p. 212-219, Amsterdam: IOS Press, Trieste, 20 June 2018 through 22 June 2018.

[C21]* **A. Mola, M. Tezzele, M. Gadalla, F. Valdenazzi, D. Grassi, R. Padovan, G. Rozza**, “Efficient reduction in shape parameter space dimension for ship propeller blade design”, *VIII International Conference on Computational Methods in Marine Engineering : MARINE 2019*. p. 201-212, Barcelona, Spain: International Center for Numerical Methods in Engineering (CIMNE), Gothenburg, Sweden, 13 May 2019-15 May 2019.

[C22] **K. Star, G. Stabile, S. Georgaka, F. Belloni, G. Rozza, J. Degroote**, “Pod- Galerkin reduced order model of the Boussinesq approximation for buoyancy-driven enclosed flows”, In: *Building theory and applications: proceedings of MeC 2019*. p. 2452-2461, 555 North Kensington Avenue: American Nuclear Society, Portland Marriott Downtown Waterfront, USA, 2019.

[C23] **M. Hess, G. Rozza**, “A spectral element reduced basis method in parametric CFD”, *Lecture Notes In Computational Science And Engineering*, vol. 126, p. 693- 701, Springer Verlag, Norway 2019.

[C24]* **N. Demo, M. Tezzele, A. Mola, G. Rozza**, “). A complete data-driven framework for the efficient solution of parametric shape design and optimisation in naval engineering problems”, *VIII International Conference on Computational Methods in Marine Engineering: MARINE 2019*. p. 111-121, Barcelona, Spain: International Center for Numerical Methods in Engineering (CIMNE), Göteborg, Sweden, 13 May 2019 - 15 May 2019.

[C25]* **M. Tezzele, N. Demo, G. Rozza**, “Shape optimization through proper orthogonal decomposition with interpolation and dynamic mode decomposition enhanced by active subspaces”, *VIII International Conference on Computational Methods in Marine Engineering: MARINE 2019*. p. 122-133, Barcelona, Spain: International Center for Numerical Methods in Engineering (CIMNE), Göteborg, Sweden, 13 May 2019 - 15 May 2019.

[C26] **E. N. Karatzas, G. Stabile, N. Atallah, G. Scovazzi, G. Rozza**, “A Reduced Order Approach for the Embedded Shifted Boundary FEM and a Heat Exchange System on Parametrized Geometries”, in *IUTAM Symposium on Model Order Reduction of Coupled Systems*, Stuttgart, Germany, May 22–25, 2018, 2020, pp. 111–125.

[C27] **L. Meneghetti, N. Demo, G. Rozza**, “A proper orthogonal decomposition approach for parameters reduction of single shot detector networks”, *Proceedings – International Conference on Image Processing, ICIP, Pages 2206-2210, 29th IEEE International Conference on Image Processing, ICIP 2022Bordeaux16 October 2022through 19 October 2022*, doi. 10.1109/ICIP46576.2022.9897513, 2022

Proceedings in Invited Books as Chapters, Special Volumes and Chapters in Books

(* with review)

[I1]* **A. Quarteroni, G. Rozza, L. Dede', A. Quaini**. “Numerical approximation of control problems for advection-diffusion processes”. *Proceedings of IFIP05 Conference*. In “*System Modeling and Optimization*”, Ceragioli, F.; Dontchev, A.; Furuta, H.; Marti, K.; Pandolfi, L. (Eds.) (Springer, New York, USA) 2006, pp.261-273. (ISBN: 0-387-32774-6)

[I2]* **A. Quarteroni, G. Rozza, A. Quaini**. “Reduced basis methods for advection-diffusion optimal control problems”. In “*Advances in Numerical Mathematics*”, W. Fitzgibbon, R. Hoppe, J. Periaux, O. Pironneau, and Y. Vassilevski Eds., pp. 193-216, Moscow/Houston, 2006.

[I3]* **C.N. Nguyen, G. Rozza, D.B.P. Huynh, A.T. Patera**, “Reduced Basis Approximation and A Posteriori Error Estimation for parametrized parabolic pdes; application to real-time Bayesian parameter estimation”. In Biegler, Biros, Ghattas, Heinkenschloss, Keyes, Mallick, Marzouk, Tenorio, van Bloemen Waanders, and Willcox, editors, “*Computational Methods for Large Scale Inverse Problems and Quantification of Uncertainty*”. John Wiley and Sons, UK, Chapter 8, pp. 151-173, 2010.

[I4]* **G. Rozza** “An Overview on Reduced Basis Methods for Parametrized PDEs”, appeared as Chapter 18 of the Book “*Numerical Models for Differential Problems*” by A. Quarteroni, Springer Series MS&A, Vol. 2, 2009.

[I5]* **M. Lombardi, N. Parolini, A. Quarteroni, G. Rozza**, “Numerical simulation of sailing boats: dynamics and shape optimization”, in “*Variational Analysis and Aerospace Engineering II*”, series “Springer Optimization and Its Applications”, Vol. 66, pp.339-378, 2012.

[I6]* **T. Lassila T, A. Manzoni, G. Rozza**. “Reduction strategies for shape dependent inverse problems in haemodynamics”, in Hömberg D, Tröltzsch F (eds), System Modeling and Optimization: 25th IFIP TC 7 Conference, CSMO 2011, Berlin, Germany, September 12-16, 2011, Revised Selected Papers. *IFIP Advances in Information and Communication Technology*, vol. 391, p. 397-406, 2013.

[I7]* **T. M. Lassila, A. Manzoni, A. Quarteroni and G. Rozza**. “Generalized reduced basis methods and n-width estimates for the approximation of the solution manifold of parametric PDEs”, in “*Analysis and Numerics of Partial Differential Equations*”, INdAM series Vol. 4, p. 307-329 Springer, 2012.

[I8]* **T. M. Lassila, A. Manzoni, A. Quarteroni and G. Rozza**. “Model order reduction in fluid dynamics: challenges and perspectives”, in “*Reduced Order Methods for modeling and computational reduction*”, *MS&A* Vol. 9, Chapter 9, (A. Quarteroni, G. Rozza, eds), 2013.

[I9]* **G. Rozza**. “Fundamentals of Reduced Basis Method for problems governed by parametrized PDEs and applications”. CISM Lectures notes “*Separated Representation and PGD based model reduction: fundamentals and applications*”, F. Chinesta, P. Ladeveze (eds), Springer, Wien, 2014.

[I10]* **A. Manzoni, T. Lassila, A. Quarteroni, G. Rozza**. “A reduced-order strategy for solving inverse Bayesian shape identification problems in physiological flows”, in Bock, H.G., Hoang, X.P., Rannacher, R., Schlöder, J. (Eds.), Proceedings of the Fifth International Conference on High Performance Scientific Computing, March 5-9, 2012, Hanoi, Vietnam. p. 145-156, Springer-Verlag, 2014.

[I11]* **P. Pacciarini P, G. Rozza**. “Reduced basis approximation of parametrized advection-diffusion PDEs with high Péclet number”, in Abdulle, A., Deparis, S., Kressner, D., Nobile, F., Picasso, M. (Eds.), Numerical Mathematics and Advanced Applications - ENUMATH 2013. Lecture Notes in Computational Science and Engineering, vol. 103, p. 419-426, Springer-Verlag, 2015.

[I12]* **D. Devaud, G. Rozza**. “Reduced Basis Approximation for the Structural-Acoustic Design based on Energy Finite Element Analysis (RB-EFEA)”, ESAIM proceedings, Vol. 48, pp.98-115, 2015.

[I13]* **F. Chinesta, A. Huerta, G. Rozza, and K. Willcox**. “Model Order Reduction: a survey.” In: *Wiley Encyclopedia of Computational Mechanics*, 2016.

[I14]* **F. Ballarin, G. Rozza, and Y. Maday**. “Reduced-order semi-implicit schemes for fluid-structure interaction problems”, *Model Reduction of Parametrized Systems, MS&A, Springer*, in press, 2017.

[I15]* **D. Devaud, G. Rozza**. “Certified Reduced Basis Method for Affinely Parametric Isogeometric Analysis NURBS”, *ICOSAHOM 2016 special volume*, LNCSE Series, Springer, in press, 2017.

[I16]* **D.B.P. Huynh, F. Pichi, G. Rozza**, “Reduced Basis Approximation and A Posteriori Error Estimation: Applications to Elasticity Problems in Several Parametric Settings, *Numerical Methods for PDEs, SEMA SIMAI SPRINGER SERIES*, vol. 15, p. 203-247, Cham: Springer, 2018.

[I17]* **M. Tezzele, F. Salmoiraghi, A. Mola, G. Rozza**, “Combined parameter and model reduction of cardiovascular problems by means of active subspaces and POD-Galerkin methods”, *Mathematical and Numerical Modeling of the Cardiovascular System and Applications. SEMA SIMAI SPRINGER SERIES*, vol. 16, p. 185-207, Springer Nature, 2018.

[I18]* **F. Auricchio, M. Conti, A.G. Lefieux, S. Morganti, A. Reali, G. Rozza, A. Veneziani**, “Computational methods in cardiovascular mechanics”, *Cardiovascular Mechanics*. Boca Raton: CRC Press; Taylor & Francis Group, 2018.

[I19]* **L. Venturi, D. Torlo, F. Ballarin, G. Rozza**, “Weighted reduced order methods for parametrized partial differential equations with random inputs”, *Uncertainty modeling for engineering applications. POLITO SPRINGER SERIES*, p. 27-40, 2019.

[I20]* **S. Hijazi, G. Stabile, A. Mola, G. Rozza**, “Non-intrusive polynomial chaos method applied to full-order and reduced problems in computational fluid dynamics: A comparison and perspectives”, In: (a cura di): D’Elia M. Gunzburger M. Rozza G., *Quantification of Uncertainty: Improving Efficiency and Technology. LECTURE NOTES IN COMPUTATIONAL SCIENCE AND ENGINEERING*, vol. 137, p. 217-240, Cham:Springer, ISBN: 978-3-030-48720-1, ISSN: 1439-7358, doi:10.1007/978-3-030-48721-8_10, 2020.

[I21] **A. Ivagnes, G. Stabile, A. Mola, . G. Rozza, T. Iliescu**, “Data Enhanced Reduced Order Methods for Turbulent Flows” in *Lecture Notes in Computational Science and Engineering*, Volume 151, Pages 171 – 198, doi. 10.1007/978-3-031-55060-7_8, 2024;

[I22], **F. Pichi, G. Rozza** “Reduced Order Models for the Buckling of Hyperelastic Beams”, *Lecture Notes in Computational Science and Engineering*, Volume 151, Pages 199 – 240, doi. 10.1007/978-3-031-55060-7_9, 2024;

[I23] **J. Genovese, F. Ballarin, G. Rozza, C. Canuto**, “Weighted Reduced Order Methods for Uncertainty Quantification in Computational Fluid Dynamics”, in *Lecture Notes in Computational Science and Engineering*, Volume 151, Pages 127 – 151, doi. 10.1007/978-3-031-55060-7_6, 2024;

[I24] **S. Ali, F. Ballarin G. Rozza**, “ An Online Stabilization Method for Parametrized Viscous Flows”, *Lecture Notes in Computational Science and Engineering*, Volume 151, Pages 1 – 16, doi. 10.1007/978-3-031-55060-7_1, 2024;

Software Library and Documentation

[S1] **rbMIT_System**: Software Library with reduced basis algorithms developed in Matlab environment. ©MIT, Technology Licensing Office, Case 12600 (A.T.Patera, G. Rozza, D.B.P. Huynh, N.C. Nguyen). Available on line at <http://augustine.mit.edu> with do cumentation and demo running on a Matlab Webserver. **Springer CSE Prize in 2009**.

[S2] **RBniCS**, F. Ballarin, A. Sartori, G. Rozza (<https://mathlab.sissa.it/rbnics>).
Open source reduced basis library based on Python and FEniCS.

[S3] **PyGeM**, F. Salmoiraghi, M. Tezzele, G. Rozza (<https://mathlab.sissa.it/pygem>)
Open source Python library for Morphing and Free-Form Deformation.

[S4] **EZyRB**, F. Salmoiraghi, M. Tezzele, G. Rozza. (<https://mathlab.sissa.it/ezyrb>)
Open source Python library for Reduced Order Outputs (PODI).

[S5] **ITHACA_FV**, G. Stabile, G. Rozza, (<https://mathlab.sissa.it/ITHACA-FV>)
Open Source

[S6] **ITHACA_SEM**, M. Hess, G. Rozza, (<https://mathlab.sissa.it/ITHACA-SEM>)
Open Source

[S7] **ITHACA_DG**, A. Lario, G. Rozza, (<https://mathlab.sissa.it/ithaca-dg>)
Open Source

[S8] **ATHENA**, M. Tezzele, F. Romor, G. Rozza, (<https://mathlab.sissa.it/athena>)
Open Source

[S9] **PyDMD**, N. Demo, M. Tezzele, G. Rozza, (<https://mathlab.sissa.it/pydmd>)
Open Source

[S10] **BladeX**, M. Gadalla, M. Tezzele, G. Rozza, (<https://mathlab.sissa.it/bladex>)
Open Source

[S11] **Grape**, N. Demo, M. Teruzzi, G. Rozza, (<https://mathlab.sissa.it/grape>)
Open Source

[S12] **multiphenics**, F. Ballarin, G. Rozza, (<https://mathlab.sissa.it/multiphenics>)
Open Source

[S13] **PINA**, N. Demo, A. Ivagnes, D. Coscia, (<https://mathlab.sissa.it/pina>)
Open Source

[S14] **GEA**, M. Girfoglio, A. Quaini, G. Rozza, (<https://mathlab.sissa.it/project/gea-geophysical-and-environmental-applications>)
Open Source

PhD Thesis

[TD1] **G. Rozza**. “Shape Design by Optimal Flow Control and Reduced Basis Techniques: Applications to Bypass Configurations in Haemodynamics”. PhD *Thesis* N. 3400, December 2005, EPFL, Lausanne, Switzerland. (**ECCOMAS Phd award 2005**)

PhD Theses as co-advisor or advisor

[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**).

[TD3] **L. Iapichino**, “*Reduced basis methods for the solution of parametrized PDEs in repetitive and complex networks with application to CFD*”, PhD Thesis, EPFL, N.5529, September 2012.

[TD4] **P. Chen**, “*Model Order Reduction Techniques for Uncertainty Quantification Problems*”, PhD Thesis, EPFL, N. 6118, February 2014.

[TD5] **F. Ballarin**, PhD Thesis, Politecnico di Milano, MOX, winter 2015.

[TD6] **A. Sartori**, PhD Thesis, Politecnico di Milano, CESNEF, winter 2015.

[TD7] **F. Negri**, PhD Thesis, EPFL, spring 2015 (**ECCOMAS Phd award 2015**).

[TD8] **S. Lorenzi**, PhD Thesis, Politecnico di Milano, CESNEF, winter 2016.

[TD9] **S. Ali**, “*Stabilized reduced basis methods for the approximation of parametrized viscous flows*”, PhD Thesis, PhD student at SISSA, 2018.

[TD10] **Z. Zainib**, “*Reduced order parameterized viscous optimal flow control problems and applications in coronary artery bypass grafts with patient-specific geometrical reconstruction and data assimilation*”, PhD Thesis, PhD student at SISSA, 2019.

[TD11] **F. Pichi**, “*Reduced order models for parametric bifurcation problems in nonlinear PDEs*”, PhD Thesis, PhD student at SISSA, 2020.

[TD12] **M. Nonino**, “*On the application of the Reduced Basis Method to Fluid-Structure Interaction problems*”, PhD Thesis, PhD student at SISSA, 2020.

[TD13] **S. Hijazi**, “*Reduced order methods for laminar and turbulent flows in a finite volume setting: projection-based methods and data-driven techniques*”, PhD Thesis, PhD student at SISSA, 2020.

[TD14] **M. Strazzullo**, “*Model order reduction for nonlinear and time-dependent parametrized optimal flow control problems*”, PhD Thesis, PhD student at SISSA, 2021.

[TD15] **M. Tezzele**, “*Data-driven parameter and model order reduction for industrial optimisation problems with applications in naval engineering*”, PhD Thesis, PhD student at SISSA, 2021.

[TD16] **M. Zancanaro**, “*Model order reduction for compressible turbulent flows: Hybrid approaches in physics and geometry parametrization*”, PhD Thesis, PhD student at SISSA, 2021.

[TD17] **N. Shah**, “*Coupled parameterized reduced order modelling of thermomechanical phenomena arising in blast furnaces*”, PhD Thesis, PhD student at SISSA, 2022.

[TD18] **U. Morelli**, “*Efficient Computational strategies for the control process of continuous casting machines*”, PhD Thesis, PhD student at University of Santiago de Compostela, 2022.

[TD19] **L. Meneghetti**, “*A reduced order approach for artificial neural networks applied to object recognition*”, PhD Thesis, PhD student at SISSA, 2022.

[TD20] **F. Romor**, “*Nonlinear parameter space and model order reductions enhanced by scientific machine learning*”, PhD Thesis, PhD student at SISSA, 2023.

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 adattività 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).

[TM4] **R. Milani**. “Metodi a basi ridotte per la risoluzione di problemi parametrizzati in elasticità lineare.” Master Degree Thesis (Laurea), Aerospace Eng., Advisor: Prof. Alfio Quarteroni, MOX-Politecnico di Milano, Italy, 2006. (Exchange student at EPFL).

[TM5] **C. Gunther**. “Reduced Basis methods for the optimization of racing car components”. Master degree Thesis, University of Aachen, 2008. (Exchange student at EPFL).

[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).

[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.
- [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", Università degli Studi di Trieste, 2023.
- [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**, **Politecnico di Milano**.

[TM41] **G. Abelli**, "A comparison between data-driven and physics-based numerical methods for inverse problems", Università degli Studi di Trieste, 2023.

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.

IMPACT IN THE SCIENTIFIC CITATIONS INDEX (SCI)

H-index: 38 (Scopus), 31 (WoS), 59 (Google Scholar);
Total citations: 7394 (Scopus), 3869 (WoS), 16390 (Google Scholar);
Average citations per item: 33.3 (Scopus), 21.6 (WoS), 80.34 (Google Scholar);
MATHSCINET (AMS): 185 items, 3565 citations.

PI included in the world's top 2% Scientists Ranking of Stanford University/Elsevier, 2023.

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

SISSA, Trieste, 24 agosto 2024

Prof Dr Gianluigi Rozza

