

PERSONAL INFORMATION

Family name, First name: LURAGHI, GIULIA

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Date of birth: 10th March 1991

Nationality: Italian

URL for web site: <https://www.cmic.polimi.it/en/persone/docenti-e-ricercatori/luraghi-giulia/>

CURRENT POSITIONS

From 2022 Assistant professor

Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano, Italy

From 2020 Affiliated Research Fellow

Department of Biomechanical Engineering, Delft University of Technology, Netherlands

PROPOSTE DI INIZIATIVE FUTURE IN AMBITO ESB-ITA

- **Newsletter mensile** con le più recenti pubblicazioni divise per area tematica, informazioni su congressi e notizie di natura biomeccanica delle altre società scientifiche (ESBiomaterials, SIB, VPH, TERMIS, ...)
- **Seminari online** a cadenza mensile di presentazione dei diversi gruppi di ricerca
- **Newsletter mensile dedicata ai soli giovani ricercatori** con bandi aperti (con giovani ricercatori come PI), posizioni aperte (post-doc e assistant professor) e scuole tematiche

PROCEDENTI ATTIVITÀ CONDOTTE IN AMBITO ESB E/O ESB-ITA

- **Membro del comitato scientifico e track chair della sessione intitolata “TR02 Cardiovascular Mechanics” per il XXVI ESB Congress.**
- **Membro del comitato organizzatore del XXVI ESB Congress. In particolare ho svolto il ruolo di Conference-portal management leader, organizzando l’architettura della piattaforma online del congresso.**
- **Twitter Manager per ESB-ITA**
- **Membro ESB e ESB-ITA dal 2017**

EDUCATION

2019 PhD in Bioengineering cum laude, Politecnico di Milano, Milan, Italy/*Supervisor: prof. Francesco Migliavacca*

2016 MSc in Biomedical Engineering cum laude, Politecnico di Milano, Milan, Italy

PREVIOUS POSITIONS

2016 – 2021 Research Fellow

Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano, Italy

2018 Visiting Research Fellow

College of Engineering, Swansea University, Wales, UK

FELLOWSHIPS AND AWARDS

2021 Politecnico di Milano Fellowship of €35,010 titled “Reduced-order and fluid-structure interaction models to study patient-specific cardiovascular diseases”

2020 Mimics Innovation Suite Award for the best “non-clinical research” paper *Luraghi et al., Journal of Biomechanics, 2019*, awarded by Materialise, Belgium

2020 Best PhD thesis awarded by Bioengineering National Group, Italy

2019 Politecnico di Milano Fellowship of €56,992 titled “Computational model to study ischemic stroke treatments”

2019 Best Thematic Presentation for an in silico model for industrial translation titled “*Insights into patient-specific models of the thrombectomy procedure*”, awarded by the Italian chapter of the European Society of Biomechanics during the IX meeting in Bologna, Italy.

2018 Best VPHi Student Award for the oral presentation titled “*A patient-specific fluid-structure interaction analysis of TAVI procedure*”, awarded by Virtual Physiological Human (VPH) society during the International Conference in Saragoza, Spain.

2017 Best Poster Award titled “*FSI Model of a Polymeric Aortic Valve: Comparison With Experimental Results And Simulation In A Patient-Specific Aortic Root*”, awarded by Virtual Physiological Human (VPH) society during the 2nd Summer School in Barcelona, Spain.

2016 Best Master thesis, awarded by Bioengineering National Group, Italy

2016 Italian Ministry of Education, University and Research Fellowship of €80,000 for three-years of PhD

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

<i>Ongoing</i>	3 post-doc fellows (Politecnico di Milano, Italy, 1. Sara Bridio, 2. Luca Antonini, 3. Sara Barati) 6 PhD students (Universidad de Zaragoza, Spain, 1. Elena Redaelli; University of Glasgow, UK, 2. Sathish Kumar Marimuthu ; Humanitas University, Italy, 3. Benedetta Grossi; Politecnico di Milano, Italy, 4. Anna Ramella, 5. Ludovica Cestariolo, 6. Vittorio Lissoni) 15 MSc students (Universidad de Zaragoza, Spain, 2 students; Politecnico di Milano, Italy, 13 students)
<i>Past</i>	1 PhD student (Politecnico di Milano, Italy, 1. Sara Bridio) 42 MSc students (Delft University of Technology, Netherlands, 2 students; Humanitas University, Italy, 1 student; Politecnico di Milano, 39 students)

TEACHING ACTIVITIES

2023	Lecturer of “ <i>Advanced Modeling in Biomechanics</i> ”, Bioengineering PhD, Politecnico di Milano, Italy (5 ECTS, about 10 students)
2017-2022	Teaching assistant of “ <i>Computational Biomechanics Laboratory</i> ”, Biomedical Engineering MSc, Politecnico di Milano, Italy (5 ECTS, about 40 students)
2016-2022	Teaching assistant of “ <i>Continuum and Structural Mechanics</i> ” in Biomedical Engineering BSc, Politecnico di Milano, Italy (5 ECTS, about 200 students).

ORGANIZATION OF SCIENTIFIC MEETINGS

2021	XXVI congress of European Society of Biomechanics, international conference (around 800 participants) role: Conference-portal management chair (online congress)
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INSTITUTIONAL RESPONSIBILITIES

From 2022	Cardiovascular-section leader of the Computational Biomechanics Laboratory, Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano, Italy
From 2022	Member of examination board, Biomedical Engineering MSc, Politecnico di Milano, Italy
2022	Member of examination board, Biomedical Engineering MSc, Delft University of Technology, Netherlands
2022	Member of examination board, Medicine and Surgery, Humanitas University, Italy

REVIEWING ACTIVITIES

From 2022	Review editorial board member of <i>Frontiers in Physiology – Computational Physiology and Medicine</i>
2021	Co-Editor of <i>Journal of Biomechanics</i> for the special issue “ <i>How can mechanics contribute improving ischemic stroke diagnostics and treatments</i> ”
2020	Co-Editor of <i>Medical Engineering & Physics</i> for the special issue “ <i>Biomechanics for in silico clinical trials</i> ”
2021	Track chair and selection of abstract for XXVI Congress of European society of Biomechanics
From 2017	Reviewer for 15+ international peer-review journals in Biomedical Engineering

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

From 2020	Member, Virtual Physiological Human society
From 2017	Member, European Society of Biomechanics
From 2017	Social Media Manager and Member, Italian chapter of the European Society of Biomechanics

MAJOR COLLABORATIONS (Selected)

Henk Marquering and Charles Majoie, *Thrombectomy modeling in patient-specific domains*, Amsterdam University Medical Center, Amsterdam, Netherlands

Alfons Hoekstra, *Applicability assessment for simulations*, University of Amsterdam, Netherlands.

Frank Gijzen, *Thrombus mechanics*, Delft University of Technology, Netherlands

Elazer Edelman, *Transcatheter Aortic valve Replacement*, Massachusetts Institute of Technology, USA.

Ethan Kung, *Fluid-structure interaction modeling*, Clemson University, USA.

Ray McCarthy, *Stent-retriever modeling*, Cerenovus, Ireland.

Patrick McGarry, *Thrombus mechanics*, National University of Ireland Galway, Ireland.

Nicolas Hill, *Endo-graft modeling*, University of Glasgow, UK.

Sanjay Pant, *Surrogate modeling*, Swansea University, UK.

Alberto Garcia-Gonzalez, *Surrogate modeling*, Universitat Politecnica de Catalunya, Spain.

David Gonzalez and Begona Calvo Calzada, *modeling of the eye*, Universidad de Zaragoza, Spain.

KEYNOTE PRESENTATIONS

2023	“ <i>Towards personalized simulations as pre-planning tool for cardiovascular procedures</i> ” during the XXVIII
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Congress of European Society of Biomechanics, Maastricht, Netherlands

- 2022 “*Stent-retrievers modelling: verification, validation and applicability analysis*” during the 11th European Solid Mechanics conference, Galway, Ireland.
- 2022 “*High-fidelity finite element simulations to model the tevar procedure*” during the 7th International conference on computational and Mathematical Biomedical engineering, Milan, Italy.
- 2021 “*Effect of compliance mismatch on flow pattern: latest data with stent and graft*” during the XII European symposium on Vascular Biomaterials, Strasburg, France.
- 2020 “*In silico model of the thrombectomy procedure: The INSIST project*” during the 15th international Symposium on Biomechanics in Vascular Biology and Cardiovascular Disease, Online congress.

CAREER BREAKS

From 28-12-2022 to 28-05-2023 Maternity (first child: Edoardo 😊)

PUBLICATION SUMMARY (as of June 2023)

Journal articles	Book Chapters	Conference presentations	Citations (Scopus)	h-index (Scopus)	Patent
32	3	39	252	10	1