



Gianluca Santesarti

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Gender: Male **Nationality**: Italian

RESEARCH INTERESTS

[01/12/2019 – Current] **Research interests**

Bioengineering, Fluid Dynamics, Fluid-Structure Interaction (FSI), non-Newtonian fluids, Computational methods, Quasi-Analytical methods, Optimization procedures.

EDUCATION AND TRAINING

[01/11/2019 – 04/07/2023] **Ph. D. degree (evaluation "excellent quality") in civil engineering**

University of Rome Tor Vergata

City: Rome

Country: Italy

[01/09/2016 – 15/03/2019] **Master's degree (110/110 cum laude) in energy engineering**

University of Bologna

City: Bologna

Country: Italy

[01/10/2011 – 28/04/2016] **Bachelor's degree (110/110 cum laude) in energy engineering**

University of Rome Tor Vergata

City: Rome

Country: Italy

[01/09/2006 – 01/07/2011] **High school diploma**

Liceo Scientifico D. Alighieri

City: Fiuggi

Country: Italy

RESEARCH EXPERIENCE

[01/03/2024 – Current] **University of Rome La Sapienza - Research fellow**

Nanoscale modelling of human bone tissue. Dept. of Mechanical and Aerospace Engineering.

PUBLICATIONS

[2022]

Models and simulations as enabling technologies for bioprinting process design.

Conti, M., Santesarti, G., Scocozza F. & Marino M. (2022). In: Bioprinting (pp. 137-206). Academic Press.

[2021]

Enabling Technologies for Obtaining Desired Stiffness Gradients in GelMA Hydrogels Constructs.

Sauty, B., Santesarti, G., Fleischhammer, T., Lindner, P., Lavrentieva, A., Pepelanova, I. & Marino, M. (2021) *Macromolecular Chemistry and Physics*, 223(2), p. 2100326.

[2021]

Computer-Aided Design for Biofabrication: basic procedures and open challenges.

Marino, M., Scocozza F., Santesarti, G. & Conti, M. (2021). In: *Biofabrication: an integrated bioengineering approach for the automated fabrication of biological structures for clinical and research applications* (pp. 133-154). Pàtron editore.

[2020]

A multiscale fluid structure interaction model derived from Koiter shell equations.

Chierici, A., Chirco, L., Giovacchini, V., Manservigi, S. & Santesarti, G. (2020). *Journal of Physics: Conference Series*. 159(1), p. 012040. IOP Publishing.

Conferences

ESB-ITA 2023, Torino, Italy, September 18-19; GIMC SIMAI YOUNG 2022, Pavia, Italy, September 29-30; World Biofabrication 2022 (ISBF), Pisa, Italy, September 25-28; AIMETA 2022, Palermo, Italy, September 4-8; ESMC 2022, Galway, Ireland, July 4-8; ESB 2022, Porto, Portugal, June 26-29; World TERMIS 2021, Maastricht, Netherlands, November 15-19; ESB 2021, Milan, Italy, July 11-14.

Acknowledgements

Paper acknowledgement in: Antonelli, D., Pasquale, L., Salvatore, A., Tiberti, M. & Verrelli, C.M. (2018). *Electric Vehicles under Slip Constraints: Experimental Results*. In 2018 AEIT International Annual Conference (pp. 1-6). IEEE.

TEACHING

[01/12/2019 – 01/09/2023] **Teaching assistant for the Solid Mechanics course**

Teaching assistant for the Solid Mechanics course of Mechanical Eng. Energy Eng., Civil Eng. and Medical Eng..

[01/03/2022 – 01/06/2022] **MATLAB software**

Course on MATLAB software for Environment Eng. and Civil Eng. master degree. 30 teaching hours (3 ECTS).

[01/03/2021 – 01/09/2021] **Thesis co-advisor**

Thesis co-advisor of a master degree student, in collaboration with the Dept. of Industrial Eng. and the Dept. of Biology.

[01/06/2020 – 01/01/2021] **Co-tutor**

Co-teacher of “Basic Mathematics AY 2020/2021” tutoring course of Engineering Sciences international degree; class preparation, student support, online surveys (Doodle, SurveyMonkey, MS Forms).

[01/03/2020 – 01/09/2020] **Tutor**

Tutor for an international internship of a ENS-Paris-Saclay student, in collaboration with Leibniz university of Hannover.

ORGANIZATION

[01/10/2021 – Current] **ESB Student Committee**

Support for student activities organization of the European Society of Biomechanics: scientific webinars, annual conference events, social media maintenance (Twitter, LinkedIn, Instagram).

[29/09/2022 – 30/09/2022] **Minisymposium**

Co-organizer of MS “Computational models as enabling technologies for (bio)printing design and tissue engineering applications”. GIMC-SIMAI YOUNG 2022 Workshop sponsored by ECCOMAS (EYIC)

[01/07/2021 – 01/01/2022] **Tutoring manager**

Co-manager of basic maths tutoring group of Eng. Sciences international degree. Tutors support, lecture schedule, info guides, back office emails. University of Rome Tor Vergata, Dept. of Industrial Eng..

WORK EXPERIENCE

[15/06/2019 – 15/12/2019]

Software analyst inside R&D

Automobili Lamborghini

City: Sant'Agata Bolognese

Country: Italy

Internship at Whole Vehicle Department, CAE software implementation

[20/05/2019 – 20/05/2019]

Ferrari - F-Factor: The Ferrari Case Study

Ferrari

City: Rome

Country: Italy

Case study at the University of Rome Tor Vergata, teamwork on the proposed case.

[01/11/2018 – 01/12/2018]

Fluid dynamics simulations at nuclear eng. laboratory of Montecuccolino

University of Bologna

City: Bologna

Country: Italy

Internship on fluid dynamics simulations with open-source finite-element software “FEMuS”.

[01/12/2017 – 01/02/2018]

Industrial chemistry library assistant

University of Bologna

City: Bologna

Country: Italy

Part-time work, user assistance and archival work

NETWORKS AND MEMBERSHIPS

Memberships

ESB (2020-present), EUROMECH (2021-present), AIMETA (2021-present), GNFM(2020-present), SIMAI (2022-present), TERMIS (2021-2022) & GNB (2021-2022)

COMPUTER SKILLS

Software

Fortran, MATLAB, C++ & Java. LabVIEW: software develop (CLAD level) & hardware myRIO for data acquisition and control. Parallel computing: open MPI. Linux OS: Xubuntu, Ubuntu, openSUSE. LaTeX. Microsoft Office: ECDL certificate. ParaView. SALOME, AutoCAD. ANSYS, Strand7 and Abaqus. THERMOFLEX.

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

German

LISTENING A1 **READING** A1 **WRITING** A1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

Spanish

LISTENING A1 **READING** A1 **WRITING** A1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

French

LISTENING A2 **READING** A2 **WRITING** A2

SPOKEN PRODUCTION A2 **SPOKEN INTERACTION** A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SOFT SKILLS

Personal skills

Determination and perseverance; organization and teamwork; developed learning and organizing informations skills; critical thinking; problem solving.
