



CHIARA SCAGLIARINI

✉ chiara.scagliarini4@unibo.it
☎ +39 345 1789423

ACADEMIC AND WORK EXPERIENCES

Ph.D. candidate (2022-ongoing)
in Mechanics and Advanced Engineering Sciences

Alma Mater Studiorum - University of Bologna, Italy

Research topic: development and characterization of thin-film electro-activated devices for transducer applications, with a particular focus on electrostatic grippers, actuators and generators, conducted at SAIMA Laboratory under the supervision of Prof. Rocco Vertechy.

Fellowship co-funded by AdapTronics s.r.l.

R&D researcher (2022-ongoing)

AdapTronics s.r.l.

Collaboration contract

Academic tutor (2023-2024)

Alma Mater Studiorum - University of Bologna, Italy

Research fellow (07/2022 - 11/2022)

Alma Mater Studiorum - University of Bologna, Italy

"Design and manufacturing of electro-adhesive devices based on polymeric materials" at SAIMA Laboratory, Industrial Engineering Department.

Academic tutor (2019)

Università degli studi di Modena e Reggio Emilia, Italy

Internship (09/2019 - 11/2019)

LivaNova, Mirandola (MO), Italy

Characterization of phosphorylcholine coatings used for cardiovascular systems oxygenators in LivaNova R&D division. Fluorescence microscopy, AFM microscopy and roughness measurement, XRD and FT-IR spectroscopy, contact angle measurements.

EDUCATION

M.Sc. in Solid State Physics (2019 - 2022)

Università degli studi di Modena e Reggio Emilia

Curriculum: Experimental Nano and Bio-Physics

- Final grade: 110/110 L
- Thesis title: "Mechanobiology by cell stretching". Supervisor: Prof. Andrea Alessandrini.
- Student Team Member for SUGAR Network: open innovation program in collaboration with UCB France, d.school Paris and Almacube - University of Bologna (9 months).

B.Sc. in Physics (2016 - 2019)

Università degli studi di Modena e Reggio Emilia

- Final grade: 99/110
- Thesis title: "Physical and chemical characterization of phosphorylcholine coatings through microscopic and spectroscopic techniques for LivaNova medical devices".

Classical High School Diploma (2011 - 2016)

Liceo classico G. Cevolani, Cento (FE)

- Final grade: 90/100
- Lyceum Society prize, a.a. 2011/2012

ACTIVITIES AND PUBLICATIONS

- June 11th-13th, 2024, Stuttgart. Participation in the 12th international Conference on Soft Transducers and Electromechanically Active Polymers held by the EuroEAP Society. Presentation of the scientific work: C.Scagliarini, F.Bertolucci, L.Agostini, R.Vertechy, "Evaluation of thin polymer dielectric films for high voltage capacitive transducer applications", EuroEAP 2024 Conference Proceedings.
- B.Bighi, G.Ragazzini, C.Scagliarini, A.Alessandrini et al., "Cell stretching devices integrated with live cell imaging: a powerful approach to study how cells react to mechanical cues", Progress in Biomedical Engineering, preprint.
- March 1st-3rd, 2023, Munich. Participation in the LOPEC Conference and Fair on Printed Electronics.

TECHNICAL SKILLS

- Design and manufacturing of electro-activated thin film devices for gripping applications, actuators and sensors via inkjet printing, doctor blade coating, aerosol-jet printing and 3D printing techniques.
- Expertise in using and designing experimental custom setups for the electro-mechanical characterization of materials: electrical breakdown, capacitance, dielectric permittivity, conductivity measurements, friction and electrostatic stress measurements.
- Familiarity with physical characterization techniques: AFM, SEM, XRD and XRPD, LEED, FT-IR spectroscopy, optical microscopy, optical profilometry.
- Familiarity with Quantum Espresso suite for nanoscale materials modeling.
- Good knowledge of FEM modeling on COMSOL and CST Studio Suite for mechanics and electrostatics.
- Proficiency in data analysis and image processing in Origin, Igor Pro, MATLAB, MountainsMap, Gwyddion, ImageJ.
- Good knowledge of Python and MATLAB programming.

LANGUAGE SKILLS

- Italian (Fluent)
- English (Fluent). Certified Cambridge First FCE in 2015.
- German (Basic)

TRANSVERSAL SKILLS AND INTERESTS

- Design Thinking methods enthusiast as a way to conduct open innovation and knowledge transfer.
- Used to work and closely collaborate with people in multidisciplinary and international environments.
- Hobbies: playing piano and keyboards, passionate about cinema, music, yoga and open-air sports activities.