

EUGENIO RICCI

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EDUCATION

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- Alma Mater Studiorum - University of Bologna** October 2020 - July 2024
PhD in Biomedical Engineering
Modelling the Sinoatrial Node Across the Scales: the Role of Heterogeneity in Pacemaking and Atrial Driving
- Alma Mater Studiorum - University of Bologna** October 2017 - March 2020
Master's Degree in Biomedical Engineering, Cum Laude
Multiscale analysis of an HCN4 channel double mutation in a human sinoatrial computational model
- Alma Mater Studiorum - University of Bologna** September 2014 - October 2017
Bachelor's Degree in Biomedical Engineering

RESEARCH EXPERIENCE

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- Alma Mater Studiorum - University of Bologna** January 2025 - Present
Junior Assistant Professor (RTD-A)
- Alma Mater Studiorum - University of Bologna** March 2024 - December 2024
Post-doctoral researcher
Advanced computational modelling of sinoatrial node pacemaking activity
- University of California, Los Angeles** June - December 2022
Research period
Heart rate variability analysis of vagal nerve stimulation effects in infarcted pigs

TEACHING EXPERIENCE

Teaching assistant at University of Bologna

Laboratories of the Master's degree course in Biomedical Engineering, academic year 2023-2024:

- *Laboratory of Wearables and Mobile Health*
- *Biomedical Instrumentation*
- *Mechanics of Biological Tissues*

Laboratories of the Master's degree course in Biomedical Engineering, curriculum Innovative technologies, academic year 2024-2025:

- *Computational Cardiology*
- *Biological Engineering*

JOB EXPERIENCE

Internship at Elements S.r.l, Cesena September 2019 - November 2019

Development of a graphical user interface in MATLAB aimed at loading, analysing and exporting electrophysiological data.

JOURNAL PUBLICATIONS

- Bartolucci C, Mesirca P, Ricci E, Sales-Belles C, Torre E, Louradour J, Mangoni ME, Severi S. **Computational Modeling of Mouse Atrio Ventricular Node Action Potential and Automaticity.** J Physiol. 2024
- Ricci E, Mazhar F, Marzolla M, Severi S, Bartolucci C. **Sinoatrial Node Heterogeneity and Fibroblasts Increase Atrial Driving Capability in a Two-Dimensional Human Computational Model.** Front in Physiol. 2024
- Ricci E, Bartolucci C, Severi S. **The virtual sinoatrial node: What did computational models tell us about cardiac pacemaking?** Prog Biophys Mol Biol. 2023
- Campana C*, Ricci E*, Bartolucci C, Severi S, Sobie EA. **Coupling and heterogeneity modulate pacemaking capability in healthy and diseased two-dimensional sinoatrial node tissue models.** PLoS Comput Biol. 2022

CONFERENCE WORKS

Computing in Cardiology, Atlanta (GA), October 2023

- **Quantification of local calcium releases contribution to diastolic depolarization in a 3D model of single rabbit sinoatrial node cell.** Eugenio Ricci, Chiara Bartolucci, Stefano Severi
- **The role of sinoatrial node heterogeneity in atrial driving and arrhythmia.** Eugenio Ricci, Chiara Bartolucci, Moreno Marzolla, Stefano Severi

Cross-talk of Cells in the Heart (The Physiological Society), Liverpool (UK), September 2023

- **The role of sinoatrial node heterogeneity in atrial driving and arrhythmia.** Eugenio Ricci, Chiara Bartolucci, Moreno Marzolla, Stefano Severi

Computing in Cardiology, Brno (Czech Republic), September 2021

- **Effects of Density and Distribution of Non-spontaneous Myocytes, Scars and Fibroblasts Inside the Human Sinoatrial Node.** Eugenio Ricci, Chiara Bartolucci, Stefano Severi

Computing in Cardiology, Rimini (Italy), September 2020

- **Mutiscale computational analysis of the effect on heart rate of a HCN4 gene double mutation: from the single channel to the clinical phenotype.** Eugenio Ricci, Alan Fabbri, Teun de Boer, Stefano Severi
- **Elements Read GUI: a versatile tool to display and analyse electrophysiological experimental data.** Eugenio Ricci, Filippo Cona, Stefano Severi

AWARDS & GRANTS

- Travel grant, VII SIRC Forum 2024 (Parma, Italy)
- EHRA Congress Educational Grant 2024 (Berlin, Germany)
- Best Poster Award, XXIV SIRC congress (Imola, Italy, October 2023)
- Bill & Gary Sanders Poster Award Competition at the Computing in Cardiology annual meeting 2023 (Atlanta, GA, USA)
- Geometric and Harmonic Analysis with Interdisciplinary Applications (GHAlA) 6-month secondment grant 2022 (Los Angeles, CA, USA)
- NVIDIA Academic Hardware Grant Program

- EHRA Congress Educational Grant 2021 (Copenhagen, Denmark)

Cesena, 02/01/2025

Enrico Pini