

# Dr Enrico Gavagnin

## Personal Information

Date of Birth 03. February 1991; Venezia, Italy  
Nationality Italian

## Employment

- 2020-today **Research Associate**, University of Bristol, School of Biological Sciences.  
Experimental and theoretical research of social immunology in ants colonies. MSc student project supervisor.  
Lab sustainability coordinator (Green Labs Certification).
- 2017-2020 **Teaching Assistant**, University of Bath, School of Mathematical Sciences.  
Programming and discrete mathematics, Modeling and dynamical systems, Probability and Statistics

## Education

- 2016-2020 **PhD in Mathematical Biology**, University of Bath.  
"Stochastic multiscale models of cell behaviour", supervisors Dr Christian A. Yates and Prof Tim Rogers
- 2015-2016 **Study abroad**, University of Bristol.  
Exchange student period (Erasmus plus) enrolled in: Complex networks, Time series analysis, Modern mathematical biology, Functional analysis
- 2014-2016 **Master degree in Mathematics, curriculum Applied Mathematics**, Università degli Studi di Padova.  
Thesis in applied probability theory, title "A condensation phenomenon in a fitness model with mutation and reinforcement", supervisor Prof. Paolo Dai Pra. Final grade: 106/110
- 2011-2014 **Bachelor degree in Mathematics**, Università degli Studi di Padova.  
Thesis in applied probability theory, title "A dissipative non-homogeneous Curie-Weiss model", supervisor Prof. Paolo Dai Pra. Final grade: 102/110

## Awards

- 2018 **TakeAIM**, Smith Institute, London.  
First prize (1000£)
- 2018 **Santander Mobility Award**, University of Bath.  
Travel grant (2000£) for a visiting period at the Queensland University of Technology, Brisbane, Australia
- 2017 **Landahl Travel Grant**, Society of Mathematical Biology.  
Travel grant (750\$) to attend the annual meeting of the Society of Mathematical Biology in Salt Lake City, Utah
- 2010 **Scuola Superiore**, Università degli Studi di Udine.  
Excellence program of University: full grant scholarship assigned for academic merit
- 2010 **Collegio Bernardo Clesio**, Università degli Studi di Trento.  
Accommodation assigned for academic merit

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## Other Attributes

Programming Matlab (advanced), Python (advanced), Mathematica (proficient), C (proficient), R (basic)  
Languages Italian (Native speaker), English (Fluent), Spanish (Basic)

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## Publications (GoogleScholar, h-index 4, 38 citations)

1. **E. Gavagnin**, S.T. Vittadello, G. Guanasingh, N.K. Haass, M.J. Simpson, T. Rogers, C.A. Yates (in revision). "Synchronised oscillations in growing cell populations are explained by demographic noise". *Biophys. J.*
2. **E. Gavagnin**, M.J. Ford, R.L. Mort, T. Rogers, C.A. Yates (2019). "The invasion speed of cell migration models with realistic cell cycle time distributions". *J. Theor. Biol.* 481, 91-99
3. **E. Gavagnin**, C.A. Yates (2018). "Stochastic and deterministic modeling of cell migration". *Elsevier - Handbook of Statistics, vol. 39, 37-91*
4. **E. Gavagnin**, J.P.Owen, C.A. Yates (2018). "Pair correlation functions for identifying spatial correlation in discrete domains". *Phys. Rev. E* 97, 062104
5. **E. Gavagnin**, C.A. Yates (2018). "Modeling persistence of motion in a crowded environment: The diffusive limit of excluding velocity-jump processes". *Phys. Rev. E* 97, 032416

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## Selected Talks and Conferences

- 2-2020 (*talk*) TakeAIM Award Ceremony, Smith Institute. Imperial College - London, UK
- 7-2019 (*talk*) Conference "Summer Solstice Conference on Discrete Models of Complex Systems" - Dresden, Germany
- 5-2019 (*poster*) LMS-CMI Research School "PDEs in Mathematical Biology: Modelling and Analysis." - Edinburgh, UK
- 4-2019 (*invited seminar speaker*) Queensland University of Technology, Brisbane, Australia
- 4-2019 (*invited seminar speaker*) University of Queensland, Brisbane, Australia
- 4-2019 (*mini-symposium co-organizer*) "Modelling stochastic biological systems" BAMC, Bath, UK
- 12-2018 (*invited seminar speaker*) Center of Information Services and High Performance Computing - TU Dresden, Germany
- 12-2018 (*invited seminar speaker*) EAWAG - Swiss Federal Institute of Aquatic Science and Technology - Zurich, Switzerland
- 7-2018 (*mini-symposium co-organizer*) "Multi-scale models of cell behaviour" ECMTB, Lisbon, Portugal
- 6-2018 (*talk*) SIAM - National Student Chapter Conference, Bath, UK
- 5-2018 (*poster*) ICMS workshop "Collective dynamics and self-organization in biological sciences" - Edinburgh, UK
- 4-2018 (*talk*) Workshop "Stochastic Models in Ecology and Evolutionary Biology" - Venice, Italy
- 7-2017 (*poster*) Society of Mathematical Biology - annual meeting, Salt Lake City, Utah

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## Outreach

- 10-2020 Article 'A collective human challenge' for the October issue of IMA Mathematics Today.
- 9-2018 Collaboration with the artist Leonie Bradley, author of "Wavefront" - Installation view of Visions of Science at Andrew Brownsword Gallery, Bath, UK