

Philip Gerlee - Curriculum Vitae

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Date of Birth: 22 September 1980
Nationality: Swedish

Research Interests

My main research interest is mathematical biology, in particular cancer modelling. I am also interested in theoretical aspects of evolution and ecology, such as the evolution of bacterial consortia and applications of game theory to biology.

Employment

Nov. 2018 - Present	Associate Professor, Mathematical Sciences, Chalmers
Sep. 2014 - Oct. 2018	Assistant Professor, Mathematical Sciences, Chalmers
Oct. 2013 - Aug. 2014	Research Scientist at Integrated Mathematical Oncology, Moffitt Cancer Center, Tampa
Aug. 2010 - May 2013	Post-doc at Sahlgrenska Cancer Center and Mathematical Sciences, Gothenburg University
Aug. 2008 - July 2010	Post-doc at Center for Models of Life, Niels Bohr Institute, Copenhagen

Education and degrees

Dec. 2017	Docent in Biomathematics at Chalmers University of Technology
June 2005 - July 2008	Ph.D in Mathematical Biology at University of Dundee, Scotland Thesis title "The role of the micro-environment in tumour growth and evolution"
June 2003 - Dec. 2004	M.Sc in Complex and Adaptive Systems at Chalmers University of Technology, Göteborg, Sweden
Sep. 2000 - June 2003	B.Sc in Engineering Physics at Chalmers University of Technology, Göteborg, Sweden

Recent presentations

- ◇ Invited speaker at CSBC - PSON Mathematical Oncology Meeting, Portland, May 2019

- ◇ Invited speaker at 1010 the Day of Mathematical Biology, Royal Swedish Academy of Sciences, Oct 2018
- ◇ Invited speaker at the Mathematics Colloquium at Case Western Reserve University, Feb 2018
- ◇ Contributed talk at the 9th Meeting on Mathematics in Biology, Mälardalens högskola, Dec 2017
- ◇ Invited speaker at Engineering Health seminar, Chalmers & AstraZeneca, Nov 2017
- ◇ Invited speaker at BioCARE advanced seminar on “Cancer cell heterogeneity”, Lund University, June 2017
- ◇ Invited speaker at MedTech West lunch seminar, Sahlgrenska Hospital, Feb 2017
- ◇ Contributed talk at Modelling Biological Evolution, University of Leicester, April 2017
- ◇ Invited speaker at ‘Tumour evolution through space and time’ workshop held at Max Planck Institute in Plön, Sep 2015
- ◇ Invited speaker at ‘Tumor heterogeneity and the microenvironment’ workshop held at Ohio State University, Feb 2015
- ◇ Invited talk in Mini-symposia “Recent advances in the mathematical modeling of glioma progression and invasion” at ECMTB in Gothenburg, June 2014
- ◇ Invited speaker at ‘ESTRO Forum’ (European Society for Therapeutic Radiology and Oncology), April 2013

Awards & Funding

- ◇ Co-PI on SSF grant “Focus on glioblastoma: using patient-derived cells to decipher tumor expansion and evaluate new treatments” in 2017 (30 Mkr over 5 years)
- ◇ Awarded Research Grant for Junior Researchers from Vetenskapsrådet (Swedish Research Council) in 2014 (3.4 Mkr over 4 years).
- ◇ Co-team leader of the winning team at the 3rd IMO workshop on Personalized Medicine, 2013. \$50K pilot grant awarded.
- ◇ Grant from Helge Ax:son Johnsons stiftelse for writing a book about complexity with philosopher Henrik Thorén, 2013
- ◇ Research grant from Assar Gabrielsson foundation for the project “Multi-phenotype characterisation of combinatorial drug perturbations” 2012 and 2010
- ◇ Research grant from Magn. Bergvalls foundation for the project “Development of a mathematical model that predicts drug response in brain tumour cells” 2011
- ◇ Awarded postdoctoral research grant from Assar Gabrielsson foundation, 2010-2012

Professional Activities

- ◇ Acted as reviewer for: Nature Scientific Reports, Bulletin of Mathematical Biology, Cancer Research, Bioinformatics, Journal of Theoretical Biology, Evolution, European Physical Journal, Frontiers in Molecular and Cellular Oncology, Mathematical Medicine & Biology, Transactions on Biomedical Engineering and Mathematical Biosciences, Physical Review Letters, Physical Review E, Ecological Complexity, Royal Society Open Science and Letters in Biomathematics
- ◇ External reviewer for Netherlands Organisation for Scientific Research (NWO), The Swiss National Science Foundation (SNF), French National Research Agency (ANR) and Cancer Research UK (CRUK), Flanders Research Foundation (FWO) and Medical Research Council (MRC)
- ◇ Acted as guest editor for PLoS Computational Biology
- ◇ Acted as external examiner for PhD thesis by Arturo Araujo at University College London, 2013
- ◇ Member of PhD-committee for Benjamin Jose Sanchez (Chalmers, 2019), Peter Fransson (Umeå, 2019) and Yu Liu (Uppsala 2018)
- ◇ Acted as discussion leader for Licentiate thesis by Tim Cardilin (Chalmers, 2016) and Yu Liu (Uppsala 2016)
- ◇ Member of programme committee for: Artificial Life XII, XIII and XIV

Supervision

- ◇ Supervisor of PhD-students Adam Malik (2015-present) and Gustav Lindwall (2018-present)
- ◇ Co-supervisor of PhD-Students Linnéa Schimdt (2010-2013) and Emil Rosén (2017-present)
- ◇ Supervisor of MSc-theses for Julia Larsson (2019), Jose Esteban Perez Hidalgo (2018), Björn Vessman (2015) and Viktor Jonsson (2011)
- ◇ Supervisor for BSc-theses for Berg, Danielsson, Nilsson & Orton-Sörensen (2017) and Dolonius & Sjöstedt (2011)

Teaching experience

- ◇ Acted as lecturer and examiner for “Mathematical modelling and problem solving (LGMA60 and LGMA65)”, “Environmental modelling (MVE345)”, “Envariabelanalys och analytisk geometri (MVE460)”, “Matematik för tekniskt basår (MVE425c)” and “Verksamhetsförlagd utbildning 4 för gymnasielärare i matematik (LG41MA)”

Pedagogical qualifications

- ◇ I have taken a total of 16 HEC of courses in pedagogics in higher education: HPE101, HPE102, CIU920, CIU930, CIU960

Computational Skills

- ◇ Scientific computing: MATLAB, Python, Mathematica, Java
- ◇ Word processing: \LaTeX , Microsoft Office

Language Skills

- ◇ Swedish: Mother tongue
- ◇ English: Write and speak fluently
- ◇ German: Basic conversational skills
- ◇ Polish: Basic conversational skills

Referees

Docent Torbjörn Lundh

Mathematical Sciences

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