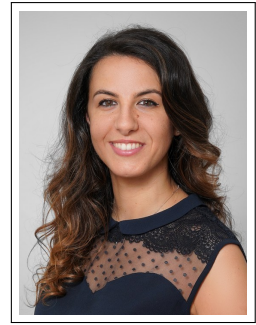


CONTACT INFORMATION

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Born on April 28, 1989. Italian citizenship.

EMPLOYMENT

Nov 2019–present: **Radon Institute for Computational and Applied Mathematics (Austria)**
Postdoctoral Researcher in the group of Dr. Marie-Therese Wolfram
Mar 2017–Oct 2019: **Vienna University of Technology (Austria)**
Scientific Manager of the Doctoral School (DK) “*Dissipation and Dispersion in Nonlinear PDEs*”

EDUCATION

2014–2018: **Vienna University of Technology (Austria)**
Ph.D in Mathematics (with Distinction), Viva date: 24 January 2018
“*Geometric analysis of multi-scale solutions in regularized models of microstructures and touchdown phenomena in MEMS*”
Advisor: Peter Szmolyan
2011–2013: **University of Naples Federico II (Italy)**
Master Degree in Mathematics (110/110 cum Laude)
“*Mathematical Models for Vegetation Pattern Formation*”
Advisors: Addolorata Marasco and Francesco Giannino
2007–2011: **University of Naples Federico II (Italy)**
Bachelor Degree in Mathematics (110/110 cum Laude)
“*On nonparametric inference statistical methods: The Wilcoxon Test*”
Advisor: Maria Longobardi

ACADEMIC HONOURS AND AWARDS

2020: **Hertha Firnberg Postdoctoral Fellowship** (243.K€)
2019: **Christiana Hörbiger Award**, travel grant (5.K€)
2018: **Christiana Hörbiger Award**, travel grant (1.1K€)

ADDITIONAL FUNDING

2020: **ICMS Early-Career Workshop** (with E. Daus, C. Soresina, A. Manhart), Edinburgh, UK (2021)
2019: **Hausdorff School** (with E. Daus, C. Soresina), Bonn, Germany (2021)

PUBLICATIONS

- [1] A. Marasco, F. Giannino, A. Iuorio. *Modelling competitive interactions and plant-soil feedback in vegetation dynamics*. *Ricerche mat.*, 2020, <https://doi.org/10.1007/s11587-020-00497-6>.
- [2] A. Iuorio, N. Popović, and P. Szmolyan. *Singular perturbation analysis of a regularized MEMS model*. *SIAM J. Appl. Dyn. Syst. (SIADS)*, 18(2):661–708, 2019, <https://doi.org/10.1137/18M1197552>.
- [3] A. Iuorio and S. Melchionna. *Long-time behavior of a nonlocal Cahn-Hilliard equation with reaction*. *Discrete Contin. Dyn. Syst.*, 38(8):3765–3788, 2018, <https://doi.org/10.3934/dcds.2018163>.
- [4] A. Iuorio, C. Kuehn, and P. Szmolyan. *Geometry and numerical continuation of multiscale orbits in a nonconvex variational problem*. *Discrete Contin. Dyn. Syst. Ser. S*, <https://doi.org/10.3934/dcdss.2020073>.

- [5] A. Marasco, A. Iuorio, F. Cartenì, G. Bonanomi, D.M. Tartakovsky, S. Mazzoleni, and F. Giannino. *Vegetation pattern formation due to interactions between water availability and toxicity in plant-soil feedback*. Bull. Math. Biol., 76(11):2866–2883, 2014, <https://doi.org/10.1007/s11538-014-0036-6>.
- [6] A. Marasco, A. Iuorio, F. Cartenì, G. Bonanomi, F. Giannino, and S. Mazzoleni. *Water limitation and negative plant-soil feedback explain vegetation patterns along rainfall gradient*. Procedia Environ. Sci., 19: 139–147, 2013, <https://doi.org/10.1016/j.proenv.2013.06.016>.

PREPRINTS

- [1] A. Iuorio, F. Veerman. *The influence of autotoxicity on the dynamics of vegetation spots*. 2020, <https://doi.org/10.1101/2020.07.29.226522>.
- [2] A. Iuorio, G. Jankowiak, P. Szmolyan, M.T. Wolfram. *A PDE model for unidirectional flows: stationary profiles and asymptotic behaviour*. 2020, <https://arxiv.org/abs/2010.14424>.

RESEARCH VISITS

- Jul 2019 & Jan 2019: **Heidelberg University (Germany)**, collaboration with Frits Veerman
- Jul 2019: **University of Rostock (Germany)**, collaboration with Jens Starke
- Jun 2018: **TU Munich (Germany)**, collaboration with Christian Kuehn
- May 2018 & Sep-Dec 2016: **The University of Edinburgh (UK)**, collaboration with Nikola Popović

SEMINAR TALKS

- Jan 2020: *Applied Math Seminar*, University of Warwick, UK
- Nov 2019: *Seminar on Qualitative Theory of Differential Equations*, Comenius University Bratislava, Slovakia
- Sep 2019: *Analysis Seminar*, University of Graz, Austria
- Aug 2019: *Applied and Interdisciplinary Mathematics Seminar*, University of Bath, UK
- Jul 2019: *GSPT Seminar*, Heidelberg University, Germany
- Jul 2019: *Mathematisches Forschungskolloquium*, University of Rostock, Germany
- Mar 2019: *Mathematisches Forschungskolloquium*, University of Rostock, Germany
- Jan 2019: *Applied Analysis Seminar*, Heidelberg University, Germany
- Jun 2018: *Oberseminar*, Technical University of Munich, Germany
- Sep 2016: *PG (Post-Graduate) Colloquium*, The University of Edinburgh, UK
- Sep 2016: *Applied and Computational Mathematics (ACM) Seminar*, The University of Edinburgh, UK

CONFERENCES & WORKSHOPS

- Aug 2020: *SMB 2020 Annual Meeting, e-Conference (Contributed talk)*.
- Aug 2020: *European Conference on Mathematical Biology (ECMTB) 2020*, Heidelberg, Germany **(Poster Presentation) (postponed)**
- Aug 2020: *Dynamics Days Europe*, Nice, France **(Invited Speaker) (postponed)**
- Feb 2020: *11th Workshop on Dynamical Systems Applied to Biology and Natural Sciences (DSABNS2020)*, Trento, Italy **(Contributed Talk)**
- Jan 2020: *PDE-MANS 2020*, Granada, Spain **(Poster Presentation)**
- Sep 2019: *Workshop “On growth and pattern formation”*, Oxford, UK **(Poster Presentation)**
- Jul 2019: *Edinburgh Slow-Fast-Ival*, Edinburgh, UK **(Invited Speaker)**
- May 2019: *SIAM Conference on Applications of Dynamical Systems (DS19)*, Snowbird, Utah, USA **(Invited Speaker)**
- Mar 2019: *GFS follow on: Mathematics of form in active and inactive media*, Cambridge, UK **(Invited Speaker)**
- Feb 2019: *First International Nonlinear Dynamics Conference (NODYCON2019)*, Rome, Italy **(Contributed Talk)**

- Feb 2019: *10th Workshop on Dynamical Systems Applied to Biology and Natural Sciences (DSABNS2019)*, Naples, Italy **(Contributed Talk)**
- Jul 2018: *European Conference on Mathematical Biology (ECMTB) 2018*, Lisbon, Portugal **(Invited Speaker)**
- Jun 2017: *9th European Nonlinear Dynamics Conference (ENOC)*, Budapest, Hungary **(Invited Speaker)**
- Jul 2016: *European Conference on Mathematical Biology (ECMTB) 2016*, Nottingham, UK
- Jun 2016: *Vienna young Scientist Symposium*, Vienna, Austria **(Contributed Talk)**
- Jul 2015: *Equadiff 2015*, Lyon, France **(Contributed Talk)**
- Jun 2013: *Four decades of progress in monitoring and modeling of processes in the soil-plant-atmosphere system: applications and challenges*, Naples, Italy **(Contributed Talk)**

RESEARCH SCHOOLS

- Mar 2020: *DK Winter School “Dissipation and Dispersion in Nonlinear PDEs”*, Baden, Austria **(Invited Speaker) (postponed)**
- Apr 2019: *LMS-CMI Research School “PDEs in Mathematical Biology: Modelling and Analysis”*, Edinburgh, UK **(Poster Presentation)**
- Nov 2015: *1st CENTRAL School on Analysis and Numerics for Partial Differential Equations*, Vienna, Austria
- Sep 2014: *Summer School “Analysis and Applications of Partial Differential Equations”*, Graz, Austria

OUTREACH EVENTS

- Dec 2016: *Edinburgh Maths Circle*, The University of Edinburgh, UK
- Nov 2016: Outreach event at *Flora Stevenson Primary School*, Edinburgh, UK

ACADEMIC SERVICES

- 2017-present: **Organiser of Scientific Events**
- 2020:
 - ICMS Early-Career Workshop “*Diffusive Systems: pattern formation, bifurcations, and biological applications*”, Edinburgh, UK (tbh in 2021)
 - Mini-symposium “*Multi-scale phenomena in biology: modelling and analysis*” at ECMTB 2020, Heidelberg, Germany **(postponed)**
- 2019: Hausdorff School “*Diffusive Systems: pattern formation, bifurcations, and biological applications*”, Bonn, Germany (tbh in 2021)
- 2017-2019: DK Winter & Summer Schools
Seminar *PDE Afternoon*
- Jun 2019: Workshop *Women in PDEs @ Vienna*, Austria
- Nov 2016: Workshop *Nonlinear PDEs & Gradient Flows: Analytical and Numerical Aspects*, Vienna, Austria
- 2018-present: **Journal Referee**
- Physica D: Nonlinear Phenomena
 - Journal of Mathematical Biology
 - Mathematical Biosciences
 - International Journal of Bifurcations and Chaos
 - IEEE Control Systems
 - Mathematical Modelling of Natural Phenomena
 - Mathematical Problems in Engineering
 - Ricerche di Matematica

SCIENTIFIC TRAINING

Jan 2017: Proposal writing
Jan 2016: Career planning
Jan 2015: Scientific writing
Jan 2014: Presentation techniques

WORK EXPERIENCE

2012-2014: **Book Reviser** for *Editorial Group SIMONE*, Italy
2013-2014: **Scientific Reviser** for *Progetto Matematika*, Italy

MEMBERSHIPS

Jul 2019–present: *European Women in Mathematics (EWM)*
Feb 2019–present: *European Society for Mathematical and Theoretical Biology (ESMTB)*
May 2019–Apr 2020: *Society for Applied and Industrial Mathematics (SIAM)*

LANGUAGES

Italian, mother tongue
English, fluent
German, fluent