

## Contact Information

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## Employment

**Mar 2017–present:** **Vienna University of Technology (Austria)**  
**Scientific Manager** of the Doctoral School (DK) “*Dissipation and Dispersion in Nonlinear PDEs*” (project W1245 funded by FWF)

## 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*

**2011–2013:** **University of Naples Federico II (Italy)**  
**Master Degree in Mathematics** (110/110 cum Laude)  
*Mathematical Models for Vegetation Pattern Formation*

**2007–2011:** **University of Naples Federico II (Italy)**  
**Bachelor Degree in Mathematics** (110/110 cum Laude)  
*On nonparametric inference statistical methods: The Wilcoxon Test*

## Academic Honours and Awards

**2019:** **Christiana Hörbiger Award**, travel grant (5.000,00€)  
**2018:** **Christiana Hörbiger Award**, travel grant (1.152,00€)

## Publications

- [1] A. Iuorio, N. Popović and P. Szmolyan. *Singular perturbation analysis of a regularized MEMS model*. To appear in SIAM J. Appl. Dyn. Syst. (SIADS), preprint available at arXiv:1807.02069.
- [2] 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>.
- [3] A. Iuorio, C. Kuehn, and P. Szmolyan. *Geometry and numerical continuation of multiscale orbits in a nonconvex variational problem*. To appear in Discrete Contin. Dyn. Syst. Ser. S, preprint available at arXiv:1701.08153v1.
- [4] 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>.
- [5] 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>.

## Research Visits

- Jan 2019: **Heidelberg University (Germany)**  
Jun 2018: **Technical University of Munich (Germany)**  
May 2018 & Sep-Dec 2016: **The University of Edinburgh (UK)**

## Conferences & Workshops

- 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)**
- Jul 2015: *Models in Cancer Therapy*, Vienna, Austria.
- Jun 2015: *Vienna PDE day*, Vienna, Austria.
- Jun 2015: *Advances in nonlinear PDEs: analysis, numerics, stochastics, applications*, Vienna, Austria
- 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

- 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

## Seminar Talks

- 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

## 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

*2018-present:* **Journal Referee**

Journal of Mathematical Biology  
Mathematical Biosciences  
IEEE Control Systems  
Mathematical Modelling of Natural Phenomena  
Mathematical Problems in Engineering

*2017-present:* **Organiser of Scientific Events**

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

## Languages

**Italian**, mother tongue

**English**, fluent

**German**, fluent