Dominik Schrempf

Käferkreuzgasse 25/11
3400 Klosterneuburg, Austria
✴ December 6, 1986
☐ +43 660 4284123
✉ dominik.schrempf@gmail.com
🌐 dschrempf.github.io/about

Education and training

Jan 2018 – Present	**Postdoc in Evolutionary Biology** *Eötvös Loránd University*, Budapest, Hungary Research area: Phylogenetic inference with a particular focus on dating as well as incongruences caused by incomplete lineage sorting, gene duplication and loss, horizontal gene transfer, and long branch attraction Methodology: Bayesian inference with Markov chain Monte Carlo algorithms; maximum likelihood inference with expectation maximization and gradient ascent; simulation studies Advisor: Gergely Szöllősi
Mar 2017 – Aug 2017	Research fellow *University of St. Andrews*, United Kingdom Advisor: Carolin Kosiol
Mar 2016 – May 2016	Visiting fellow *Aarhus University*, Denmark Advisor: Asger Hobolth
Sep 2013 – Aug 2017	**Doctor of Philosophy in Population Genetics** *University of Veterinary Medicine Vienna*, Austria Thesis: Discrete multivariate boundary mutation models and their application to tree inference, Advisor: Carolin Kosiol Defended with distinction (1.0)
Oct 2010 – Apr 2013	**Master of Science in Technical Physics** *Institute of Applied Physics, Vienna University of Technology*, Austria Thesis: Development of an ultra-compact setup for measuring ion-induced electron emission statistics, Advisor: Friedrich Aumayr Graduation with distinction (1.0)
Feb 2010 – Sep 2010	Visiting student *Pontificia Universidad Católica de Chile*, Santiago de Chile
Oct 2006 – Feb 2010	**Bachelor of Science in Technical Physics** *Vienna University of Technology*, Austria Thesis: Evolution of Rydberg wave packets, Advisor: Shuhei Yoshida Graduation with distinction (1.0)
1997 – Jul 2005	**High School Degree** *Scientific High School*, Brucknerstraße Wels, Austria Graduation with distinction (1.0)

Awards

2018	Promotio sub auspiciis praesidentis rei publicae (highest honor for school and study success of Austria) and the Austrian Award of Excellence ($\sim 10\,000€$)
2016	Residence grant, Aarhus University, Denmark ($\sim 3000€$)
2010	Joint Study Award for an exchange semester in Santiago de Chile
2007 − 2009, 2012	Academic scholarship, Vienna University of Technology ($\sim 900€$ yearly)

Languages

German	Primary fluency	*Mother tongue*
English	Primary fluency	*Working language for more than 10 years*
Spanish	Professional working proficiency	
Hungarian	Limited working proficiency	*Partly spoken in my family*

Computational skills

Programming languages	■■■■■	Haskell	*Development of libraries and applications*
	■■■■□	Python	*Data science and plotting*
	■■■■□	Nix	*Software packaging, system deployment*
	■■■□□	C, C++	
	■■■□□	Rust	*Recently acquired interest*
	■■□□□	Fortran	
Mathematics and statistics	■■■□□	R	
	■■□□□	Mathematica	
	■□□□□	Matlab	
Office tools	■■■■■	Emacs	*Every day use*
	■■■■□	LaTeX	*Scientific publications and presentations*
	■■■□□	LibreOffice	
Operating systems	■■■■■	Linux	*NixOS; previously Arch Linux, Debian*
	■■■■□	Bash, Linux core utilities	

Maintained packages on Hackage

`mcmc`	*Markov chain Monte Carlo sampler with advanced algorithms*
ELynx Suite	*Library and tool set for computational evolutionary biology*
`circular`	*Circular fixed-size mutable stacks*
`covariance`	*Estimation of large-dimensional covariance matrices*
`dirichlet`	*Multivariate Dirichlet distribution*
`pava`	*Computation of greatest convex majorants and least concave minorants*

Exceptional methodological skills

Bayesian inference	I consider myself an expert in developing, implementing and applying Markov chain Monte Carlo algorithms.
Maximum likelihood estimation	I have comprehensive experience in working with probabilistic models and algorithms in maximum likelihood frameworks.

Teaching experience

Supervised students	Lénárd Szánthó (2020 – 2022), Lukas Weilguny (2016)
2014 – 2015	University of Veterinary Medicine Vienna (Austria) Supervised courses: Bioinformatics in Biomedicine, Next Generation Sequencing
2008 – 2012	Vienna University of Technology (Austria) Supervised courses: Basic Principles of Physics 1–3, Modelling in Physics, Quantum Mechanics 2 and Laboratory Work
2010 – 2011	Tutor, Lernquadrat (Tutored pupils aged 11 – 18 in Mathematics and Physics), Vienna (Austria)

Official functions

2014 – 2017	Member of the Representatives of the PhD students of the University of Veterinary Medicine Vienna
2014 – 2017	Member of the Curricular Commission of the PhD program of the University of Veterinary Medicine Vienna
2014 – 2015	Student speaker of the Vienna Graduate School of Population Genetics

Extracurricular activities

Oct 2005 – Sep 2006	Paramedic (civil service), *Red Cross*, Grieskirchen, Austria
	In my free time I enjoy singing in a choir and making music with the saxophone and the piano. I am fond of juggling and winter sports as well as hiking in the mountains with friends. I like to travel and to get to know new cultures and ways of life.

Scientific publications

For an overview of my scientific publications and their impact, please visit my Google Scholar profile.