

Curriculum Vitae

Name: Matúš Medo
Born: 6th December 1979 in Prešov, Slovakia
Citizenship: Slovak
Family status: Married, three children
Homepage: <http://www.ddp.fmph.uniba.sk/~medo/physics/>
Google Scholar: <http://scholar.google.ch/citations?user=ZRsx0AEAAAAJ>

Education

- PhD (University of Fribourg, Switzerland) October 2006—September 2008
PhD study in statistical physics. Thesis “Applications of Statistical Physics in Complex Systems” supervised by Prof. Yi-Cheng Zhang defended in September 2008.
- PhD (Comenius University, Slovakia) October 2003—September 2006
Phd study in theoretical physics. Thesis “Economic models on complex networks” supervised by Dr. František Šlanina (Czech Academy of Sciences, Czech Republic) defended in November 2010.
- Master in physics (Comenius University, Slovakia) September 1998—June 2003
Specialization “Theoretical and Mathematical Physics”. Graduation with distinction.

Current and previous positions

- Data Scientist (Inselspital, Bern and Medical Faculty, University of Bern) November 2016—present
- Lecturer (University of Fribourg, Switzerland) February 2017—present
- Associate professor (IFFS, UESTC, Chengdu, China) March 2017—February 2020
- Maître-assistant/Oberassistent (University of Fribourg, Switzerland) July 2012—January 2017
- Post-doc (University of Fribourg, Switzerland) October 2008—June 2012

Grants

- Current: The temporal dimension of complex networks: models, metrics, and community detection (Swiss National Science Foundation, grant No. 200020182498, 500,000 CHF, co-applicant). Managing population-related variability in transcriptomics data (Werner und Hedy Berger-Janser Stiftung, 120,000 CHF).
- Past: Temporal dimension of complex networks: models and algorithms (National Natural Science Foundation of China, grant No. 11850410444). Node heterogeneity and temporal patterns in growing complex networks (Swiss National Science Foundation, grant No. 200020-156188, 300,000 CHF, co-applicant), New Models of Growing Networks (Swiss National Science Foundation, grant No. 200020-143272, 120,000 CHF, co-applicant), Evolving and adaptive networks (Swiss National Science Foundation, grant No. 200020-132253, 120,000 CHF, co-applicant).
- Large EU projects: Liquid Publications, Non-equilibrium Social Sciences, Quallity Collectives, GROWTHCOM (9.5 million EUR in total; the Fribourg team share: 1.7 million EUR). I participated in proposal preparation, project work, and reporting activities.

Representative publications and their citation counts (Google Scholar, September 13, 2021)

1. T. Zhou, Z. Kuscsik, J.-G. Liu, **M. Medo**, J. R. Wakeling, Y.-C. Zhang, Solving the apparent diversity-accuracy dilemma of recommender systems, PNAS 107, 4511-4515 (2010) 979
2. **M. Medo**, G. Cimini, S. Gualdi, Temporal effects in the growth of networks, Physical Review Letters 107, 238701 (2011) 146
3. H. Liao, M. S. Mariani, **M. Medo**, Y.-C. Zhang, M.-Y. Zhou, Ranking in evolving complex networks. Physics Reports 689, 1-54 (2017) 153
4. M. S. Mariani, **M. Medo**, F. Lafond, Early identification of important patents: Design and validation of citation network metrics. Technological Forecasting and Social Change 146, 644-654 (2019) 27
5. **M. Medo**, M. S. Mariani, L. Lü, The fragility of opinion formation in a complex world. Communications Physics 4, 1-10 (2021) 2

Awards / Work recognition

- Paper “The fragility of opinion formation in a complex world” (Comms Phys, 2021) was covered by various media (SRF4, Blick, swissinfo.ch,...)
- Title “Privatdozent” in theoretical physics awarded by the Faculty of Science, University of Fribourg in April 2017
- Paper on similarity-preferential diffusion (Zeng et al, 2014) has been chosen as one of the best papers published by the EPL (Europhysics Letters) in 2014
- Paper on crowd avoidance in recommendation (Gualdi et al, 2013) was covered by the Symmetry Magazine published jointly by Fermilab and SLAC in an article entitled the title “Physics and the wisdom of crowds” and by the online magazine TechNewsDaily in an article entitled “Particle Physics Improves Search Engine Recommendations”
- Paper on temporal effects in the network growth (Medo et al, 2011) has been included in PRL editors’ selection and covered by the APS magazine Physics. Talks presenting this paper have been given at multiple venues (Vienna, Zurich, Warsaw, etc.)
- Paper concerning “Solving the apparent diversity-accuracy dilemma of recommender systems” (PNAS; Zhou et al, 2010) was described in Nature as a “prime example of how scientists from disciplines outside your own can spark new trains of thought”
- Best poster award in the International Workshop on Coping with Crises in Complex Socio-Economic Systems, Zurich, Switzerland (June 2009)

Reviewing and organizing activities

- I serve in the Program Committee committee of NetSci-X 2020 and the COMPLEXIS conference series
- I regularly review papers for a number of scientific journals, including Nature, Nature Communications, Europhysics Letters, Journal of Statistical Mechanics, Physics Letters A, Scientific Reports, PLoS ONE, Advances in Complex Systems, and others

