

Tomasz Raducha

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born 29.03.1991 in Poland

Short summary

Post-doc researcher at Institute for Cross-Disciplinary Physics and Complex Systems investigating complex adaptive systems. PhD in physics from the University of Warsaw. One year spent on an internship at IFISC UIB (Spain) working with prof. Maxi San Miguel. Experience in teaching, presenting science, peer reviewing. 5 publications in scientific journals. Over 10 talks at international conferences and almost as much posters. Member of the organizing committee at Econophysics Colloquium 2017 and Winter Workshop on Complex Systems 2019. The Polish National Science Center Etiuda grant winner. Currently a member of the CSS Council, the advisory board of the yrCSS and the steering committee of the WWCS. Professional experience in software development. So far, working mainly on coevolving network models extending Axelrod model, voter model, Ising model.

Education and academic positions

- 2020–present **post-doc position**, *IFISC UIB-CSIC*, Spain
- 2015–2020 **PhD in physics**, *Faculty of Physics University of Warsaw*, Poland
Defended with distinction, thesis concerned statistical physics of coevolving networks
- 2013–2015 **MSc in physics**, *Faculty of Physics University of Warsaw*, Poland
Graduated with honors, thesis concerned complex networks in social phenomena
- 2010–2013 **BSc in physics**, *Faculty of Physics University of Warsaw*, Poland
Thesis concerned inflationary cosmology

Scientific publications

- 2020 **Scientific Reports**, *Emergence of complex structures from nonlinear interactions and noise in coevolving networks*,
<https://doi.org/10.1038/s41598-020-72662-8>
T. Raducha, M. San Miguel
- 2018 **Europhysics Letters**, *Coevolving nonlinear voter model with triadic closure*,
<https://doi.org/10.1209/0295-5075/124/30001>
T. Raducha, B. Min, M. San Miguel
- 2018 **Physical Review E**, *Statistical mechanics of a coevolving spin system*,
<https://doi.org/10.1103/PhysRevE.98.030301>
T. Raducha, M. Wilinski, T. Gubiec, H. E. Stanley

- 2018 **PLoS ONE**, *Predicting language diversity with complex networks*,
<https://doi.org/10.1371/journal.pone.0196593>
 T. Raducha, T. Gubiec
- 2017 **Physica A**, *Coevolving complex networks in the model of social interactions*,
<http://dx.doi.org/10.1016/j.physa.2016.12.079>
 T. Raducha, T. Gubiec

Scientific conferences and workshops

- Jan. 2020 **Winter Workshop on Complex Systems 2020**, Charmey, Switzerland
 project leader
- Dec. 2019 **Complex Networks**, Lisbon, Portugal
 oral presentation
- Oct. 2019 **Conference on Complex Systems**, Singapore
 oral presentation
- Jul. 2019 **10th Polish Symposium on Physics in Economics and Social Sciences (FENS)**, Otwock, Poland
 oral presentation
- Jun. 2019 **SFINKS symposium of interdisciplinary physics**, Warsaw, Poland
 oral presentation **awarded third price by the audience**
- Feb. 2019 **Winter Workshop on Complex Systems 2019**, Zakopane, Poland
 organizer, also presenting a poster
- Sept. 2018 **Conference on Complex Systems**, Thessaloniki, Greece
 oral presentation, obtained **Scholarships for Events on Complex Systems (SECS)** from yrCSS covering the conference fee
- Sept. 2018 **CCS Warm-up by yrCSS**, Thessaloniki, Greece
 oral presentation
- Sept. 2018 **Econophysics Colloquium**, Palermo, Italy
 poster
- Oct. 2017 **COSTNET17**, Palma de Mallorca, Spain
 oral presentation and poster
- Sept. 2017 **Summer School on Complex Socio-Technical Systems**, Palma de Mallorca, Spain
 oral presentation and poster
- Jul. 2017 **SigmaPhi**, Corfu, Greece
 oral presentation, obtained **EPS Young Researcher Grant** covering the conference fee
- Jul. 2017 **13th Econophysics Colloquium & 9th FENS**, Warsaw, Poland
 oral presentation and poster
- Jun. 2017 **Crossroads in Complex Systems**, Palma de Mallorca, Spain
 poster
- Jun. 2017 **Young Researchers at the Crossroads**, Palma de Mallorca, Spain
 oral presentation

- Mar. 2017 **2nd Econophysics Network Workshop**, Leicester, England
oral presentation
- Jan. 2017 **SFINKS symposium of interdisciplinary physics**, Warsaw, Poland
oral presentation **awarded second price by Center for Advanced Studies**
- Nov. 2016 **Symposium of Institute of Experimental Physics**, Warsaw, Poland
poster
- Sept. 2016 **Conference on Complex Systems**, Amsterdam, Netherlands
oral presentation
- Jan. 2016 **Workshop on Diffusion Processes in Complex Networks (DPCN)**, *part of the conference NetSciX*, Wrocław, Poland
- Nov. 2015 **8. Polish Symposium on Econo- and Sociophysics (FENS)**, Rzeszów, Poland
poster
- Sept. 2015 **43. Congress of Polish Physicists**, Kielce, Poland
poster

Scientific visits

- 2019-2020 **Internship**, *Institute for Cross-Disciplinary Physics and Complex Systems, University of the Balearic Islands, Spain*
Nine-months research visit at IFISC institute financed by Etiuda grant
- 2019 **Short visit**, *Institute for Cross-Disciplinary Physics and Complex Systems, University of the Balearic Islands, Spain*
One-month research visit at IFISC institute financed by ZIP grant
- 2017-2018 **Internship**, *Institute for Cross-Disciplinary Physics and Complex Systems, University of the Balearic Islands, Spain*
One-year research contract in the project ESoTECoS at IFISC institute under supervision of prof. Maxi San Miguel

Professional experience

- 2016-2017 **Python developer**, IndigoBird sp. z o. o.
Responsible for the development of a multipurpose platform for management of e.g. car flow
- 2014-2016 **Software developer**, Lacan Technologies sp. z o. o.
Responsible for the development of a ERP system, web client and automated testing platform, coding mainly in Python, plus a bit of JavaScript and PHP
- 2013 **Intern**, BGŻ BNP Paribas
Internship in the Department of Risk Modeling, developing scoring models in R
- 2009-2013 **Student jobs**
selling homemade cakes, warehouse worker, copy editing, bartender, cook

Committees

Complex Systems Society,
Member of the CSS Council
cssociety.org

Young Researchers of the Complex Systems Society,

Member of the Advisory Board

yrcss.cssociety.org

Winter Workshop on Complex Systems, Member of the Steering Committee

wwcs.altervista.org

Complex Networks 2020, Member of the Technical Program Committee

complexnetworks.org

Referees

prof. Maxi San Miguel, University of the Balearic Islands, IFISC institute

maxi@ifisc.uib-csic.es, phone: +34 971 17 32 29

prof. Ryszard Kutner, University of Warsaw, Faculty of Physics

ryszard.kutner@fuw.edu.pl, phone: +48 22 55 32 730

dr Tomasz Gubiec, University of Warsaw, Faculty of Physics

tomasz.gubiec@fuw.edu.pl, phone: +48 22 55 32 714

Organizing experience

2019 **CCS 2019 Warm Up,** yrcss.cssociety.org/warm-up-2019
member of the organizing committee

2019 **Winter Workshop on Complex Sytems 2019,** www.wwcs2019.org
member of the organizing committee

2017 **13th Econophysics Colloquium & 9th Polish Symposium,** www.ec2017.org
member of the organizing committee

2017 **Polish Physical Contest *Poszukiwanie Talentów***
organization, evaluation and interviewing candidates

Other activities & achievements

2019 **Polish Physical Society**
memembr of the Polish Physical Society from 2019

2019 **Etiuda grant from the Polish National Science Center**
obtained a PhD scholarship under the prestigious Etiuda grant

2018 **Scholarships for Events on Complex Systems (SECS) from yrCSS**
covering the fee at the Conference on Complex Systems 2018

2018 **Bridge Grant from Young Researchers of the Complex Systems Society**
obtained together with Mateusz Wiliński to finish our project (see publications)

2017 **Workshop on computer modeling of epidemic outbreaks**
tutor during open days at the University of Warsaw

2017 **Second price for the best talk by Center for Advanced Studies**
during SFINKS symposium of interdisciplinary physics

2015-2019 **Teaching**
stochastic processes, econophysics, classical mechanics, programming coevolving networks

2016-2020 **Peer reviews**

in Applied Network Science, Physica A, IEEE Transactions on Neural Networks and Learning Systems, Journal of Complex Networks, Communications Physics, Acta Physica Polonica A, Complex Networks 2020

Languages

Polish, native language

English, fluent

Spanish, intermediate

Computer skills

programming languages Python, C, R, JavaScript, Bash

databases PostgreSQL and MySQL

developer tools GIT, SVN, Vagrant, VirtualBox

Interests

climbing 7b+ leading, 7a deep water soloing

roller skating trying to polish my slides

cooking ex-cook, now doing it for fun