

Personal information

Name: Botond TYUKODI

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Professional experience

- 2022 – present **Project director** in MSCA-IF at UBB Cluj-Napoca, Physics Department
2021 - 2022 **Project director** in PD national grant, UBB Cluj-Napoca, Physics Department
2018 – 2022 **Postdoctoral researcher** at Brandeis University, Martin Fisher School of
Physics, Waltham, USA
2017 – 2018 **Postdoctoral researcher** at Northeastern University, dept. of Mechanical and
Industrial Engineering, Boston, USA
2016 –2017 **Price Modeler** at Akceso AG, Basel, Switzerland (remote, industrial position)

Education

- 2012 – 2016 **PhD.** position in cooperation between ESPCI Paris and UBB Cluj-Napoca
Thesis title: A depinning approach of amorphous plasticity and dewetting
Qualification: très honorable; Link to thesis: <https://goo.gl/5U77YG>
2010 – 2012 **MSc.** degree in Computational Physics, Faculty of Physics, Babeş-Bolyai University,
Cluj-Napoca (Grade: 10/10)
2007 – 2010 **BSc.** degree in Computational Physics, Faculty of Physics, Babeş-Bolyai University,
Cluj-Napoca (Grade: 9.79/10)
2003 – 2007 **High School:** Octavian Goga National College, Marghita, profile of Mathematics and
Informatics

Scholarships, grants and awards

- 2022 – 2024 Marie Skłodowska–Curie European Fellowship (24 months)
“Optimal design of frustrated self assembly building blocks”
142 000 EUR (project director)
2020 – 2022 UEFISCDI PNCDI III-PD national grant PN-III-P1-1.1-PD-2019-0236 (24 months)
“Localization, fluctuations and memory in soft interfaces under oscillatory load”
51 000 EUR (project director)
2019 UEFISCDI mobility national grant PN-III-P1-1.1-MCT-2019-0012 (3 weeks)
(project director)
2017 – 2022 Brandeis Materials Research Science and Engineering Center (MRSEC) grant by NSF
18M USD (participant as postdoctoral researcher)
2013 – 2014 National Excellence Scholarship TAMOP No.4.2.4.A/2-11-1-2012-0001(12 months)
“Applications of depinning models in statistical physics”
6 000 EUR (project director)
2012 – 2016 (with interruptions) MODEGAP - CORDIS-EU grant

"Multi-mode capacity enhancement with PBG fibre" 2.9M EUR (participant as research engineer)
2010 SIMLAB DAAD Scholarship, TUM Munich (3 months)
2011 – 2014 Collegium Talentum Scholarship A2-CT-DOKT-13-0010 (12 months)
2008 – 2012 KMEI (Hungarian University Federation of Cluj) Scholarship (4 years)
2007 – 2012 University Scholarship (5 years)
2007 – 2008 Petrom Romania Scholarship (24 months)
2009 – 2011 Two 1st prizes and one 2nd prize at Transylvanian Student Conference, participant on Hungarian National Student Conference

Research Interests

computational and statistical physics, simulation and modeling of complex systems, soft interfaces, disordered materials and systems and fluctuations therein, interdisciplinary problems, optimization problems, high performance distributed computing, self organization and self assembly at the nanoscale

Skills

programming languages: C/C++ and parallel computing with OpenMP, Python with NumPy, Pandas, BeautifulSoup and visualization tools (Matplotlib, Bokeh), Java, basic database (SQL and MongoDB) management; basics of machine learning; experience in Atomic Force Microscopy; experience in Monte Carlo and Molecular Dynamics simulation methods; experience in common numerical, signal processing and data analysis methods

Languages

Hungarian (native), Romanian (C2, baccalaureate), English (C1), French (B2)

Internship, visits, summer schools

Memory formation in matter workshop (*KITP, Santa Barbara, USA, 2018*), Invited seminar talk at the Pellenq group at MIT (*Boston, USA, 2017*), Visiting Scholar at Northeastern University (*Boston, USA, 2015*), **Flowing Soft Matter Summer School (*International Centre for Mechanical Sciences, Udine, Italy, 2014*)**, **visiting Glass and Time at Roskilde University (*Roskilde, Denmark, 2014*)**, **Driven Disordered Systems workshop (*Laboratoire Interdisciplinaire de Physique, Grenoble, France, 2014*)**, **Summer School on Statistical Physics of Complex and Small Systems (*IFISC, Palma de Mallorca, Spain, 2013*)**, **Summer University on Fusion Plasma (*Max-Planck Institute for Plasmaphysics, Munich, Germany, 2012*)**, research internship, laboratoire PMMH & Institut Langevin (*ESPCI, Paris, France, 2012*) , **DAAD Simlab Scholarship Program, Technical University of Munich (*Munich, Germany, 2010*)**, Mathematical Modeling, Nonlinear Dynamics, Stochastic and Complex Systems Summer School (*Denmark Technical University, Denmark, 2010*), International Workshop on Stochastic Phenomena Summer School (*Cluj-Napoca, 2008*)

Publications

17 ISI publications, 1 book, >15 international conference presentations

Total citations: 253 (Google Scholar, <https://bit.ly/31XglKu>), 135 (WOS)
H-index: 10 (Google Scholar), 8 (WOS)