

Curriculum Vitae

Personal information

Forename/surname: Balázs Bárány
Nationality: Hungarian
Birth date: 1984
Gender: male



Contact

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Jobs

Dates Sept. 2018-
Position Associate Professor (permanent)
Institute Budapest, University of Technology and Economics, Department of Stochastics, Budapest, Hungary

Dates Sept. 2012-Aug. 2018
Position Assistant Professor (permanent)
Institute Budapest, University of Technology and Economics, Department of Stochastics, Budapest, Hungary

Dates Sept. 2020-June 2022
Position Research Fellow (temporary)
Institute Budapest University of Technology and Economics, MTA-BME Stochastics Research Group, Budapest, Hungary

Dates Feb. 2017-Sept. 2017
Position Postdoctoral Researcher (temporary)
Institute Einstein Institute of Mathematics, Hebrew University of Jerusalem, Jerusalem, Israel
Mentor Prof. Michael Hochman

Dates Feb. 2016-Jan. 2017
Position Research Fellow (temporary)
Institute Budapest University of Technology and Economics, MTA-BME Stochastics Research Group, Budapest, Hungary

Dates Sept. 2014-Feb. 2016
Position Research Fellow (temporary)
Institute University of Warwick, Mathematics Institute, Coventry, UK
Mentor Prof. Mark Pollicott

Dates Sept. 2013-Aug. 2014
Position Research Fellow (temporary)
Institute Budapest University of Technology and Economics, MTA-BME
Stochastics Research Group, Budapest, Hungary

Dates Sept. 2012-Aug. 2013
Position Assistant Professor (temporary)
Institute Polish Academy of Sciences Institute of Mathematics (IMPAN), Warsaw,
Poland
Mentor Prof. Michał Rams

Dates Aug. 2008.-Aug. 2009.
Position Early Stage Researcher
Institute Marie Curie Training Network CODY, Polish Academy of Sciences
Institute of Mathematics (IMPAN), Warsaw, Poland.
Supervisor Prof. Michał Rams

Honours and Scholarships

- 1) Bolyai plaque, Hungarian Academy of Sciences, 2021.
- 2) "OTKA" young researcher excellence programme FK134251, 2020-24.
- 3) Paul Erdős Prize of the Hungarian Academy of Sciences, Section of Mathematics, 2020.
- 4) János Bolyai Research Scholarship of the Hungarian Academy of Sciences, 2016-2020.
- 5) Scholarship of the postdoctoral excellence program NKFIH PD123970, 2017-2020.
- 6) the New National Excellence Program (Bolyai+) of the Ministry of Human Capacities ÚNKP-18-4-BME-385, 2018-19.

Education

Dates Sept. 2009.-June 2012.
Title of qualification PhD in Mathematics
Institute Department of Stochastics, Institute of Mathematics, Budapest
University of Technology and Economics, Budapest, Hungary.
Supervisor Prof. Károly Simon

Dates Sept. 2003.-June 2008.
Title of qualification Master of Science in Mathematics
University Budapest University of Technology and Economics, Faculty of Natural
Sciences, Budapest, Hungary.

Languages hungarain (native), english, german

Long term visits

- 1) 2 months visit in University of Oulu, Sept-Oct 2021.
- 2) 1 months visit in the Mittag-Leffler Institute on Fractal Geometry and Dynamics program, Nov.-Dec. 2017.
- 3) 7 months visit in Einstein Institute of Mathematics, Hebrew University of Jerusalem, working with Prof. Mike Hochman, Feb-Aug 2017.
- 4) 2 months visit in Banach Center, Simons Semester on Dynamical Systems in Warsaw, Oct-Nov. 2015.
- 5) 3 months visit in Banach Center. CODY Autumn in Warsaw. Working with Prof Michał Rams, Oct-Dec. 2010

Research Grant memberships

- 1) Hungarian Scientific Research Fund, OTKA grant number K123782, 2017-21.
- 2) EPSRC grant EP/J013560/1, Thermodynamic formalism and flows on moduli spaces, 2014-16.
- 3) Hungarian Scientific Research Fund, OTKA grant number K104178, 2012-16.
- 4) Hungarian Scientific Research Fund, OTKA grant number K71693, 2008-12.
- 5) EU FP6 Research Training Network CODY, 2008-09.

Collaborators

Krzysztof Barański (Univ. of Warsaw), Andrew Ferguson (Univ. of Bristol), Michael Hochman (Hebrew Univ. Jerusalem), Thomas Jordan (Univ. Bristol), Natalia Jurga (Univ. St. Andrews), Antti Käenmäki (Univ. Oulu), Gergely Kiss (Univ. Luxembourg), István Kolossváry (BUTE), Henna Koivusalo (Univ. Vienna), Ian D. Morris (Univ. of Surrey), Mark Pollicott (Univ. of Warwick), Michał Rams (IMPAN), Ariel Rapaport (Hebrew Uni. of Jerusalem), Julia Romanowska (Univ. of Warsaw), Eino Rossi (Univ. Helsinki), Ruxi Shi (IMPAN), Károly Simon (BUTE), Boris Solomyak (Bar-Ilan Univ.), Adam Śpiewak (Bar-Ilan Univ.), Sascha Troscheit (Univ. Vienna), Todd Young (Ohio Univ.), Han Yu (Cambridge Univ.).

Reviews

I write referee reports for several mathematical journals (ex. Advances in Math.; Ann. Inst. H. Poincaré Probab. Statist.; Bull. of AMS; Duke Mathematical Journal; Geom. Funct. Anal.; Inventiones Math., Math. Zeitschrift; Nonlinearity; Ergod. Th. Dynam. Sys.; Proc. of AMS; J. Math. Anal. Appl.; Fund. Math.; Acta Math. Hungar.; Chaos, Fractals & Solitons; Fractals; J. Fractal Geom).

Teaching experience

At Budapest University of Technology (BUTE) I am the instructor of Advanced Mathematics English course for civil engineer MSc students and the instructor of Probability Theory 2 course and Probability Theory 1 English course for Math. BSc students.

In 2019 at BUTE, I held a MSc course on “Fractals and geometric measure theory”.

In 2016 at BUTE, I was the instructor of Stochastics Processes course for Mathematics BSc students. From 2013 to 2016, I was the instructor Calculus and multiple Calculus courses for civil engineer BSc students.

At Univ. of Warsaw (MIMUW) in 2013, I gave an MSc course on Fractals and geometric measure theory.

During my PhD studies from 2009 to 2012, I was a teaching assistant at the BUTE conducting problem solving sessions for civil engineer and architect undergraduates for the following courses: Calculus, Linear Algebra, Multivariate Calculus, ODE.

Conference participations as invited speaker

- 1) minicourse on „Dimension Theory of Self-affine sets”, 2019 Fall Program of Low-Dimensional Dynamics, 15-18 Oct. 2019, Fudan Uni., Shanghai, China
- 2) “Topological and Probabilistic Methods in Low-dimensional Dynamics”, 21-25 Oct. 2019, Shanghai, China
- 3) Dynamics, measures and dimensions, 7-12 April 2019, Będlewo, Poland
- 4) Fractal Geometry and Stochastics 6, Sept. 30-Oct. 5 2018, Bad Herrenalb, Germany
- 5) Workshop in Ergodic Theory & Symbolic Dynamics, 13-15 Sept. 2017, London, UK
- 6) Ergodic, Algebraic and Combinatorial Methods in Dimension Theory, February 15-19 2016, Providence, USA.
- 7) Fractal geometry and Dynamics, October 12-16 2015, Będlewo, Poland.
- 8) Workshop on Fractals, June 8-12 2014, Jerusalem, Israel

Conference participations

Thermodynamic Formalism Ergodic Theory and Geometry, 22-26 July 2019, Warwick, UK

Number Theory and Dynamics, 25-29 March 2019, Cambridge, UK

Geometric measure theory and its connections, 4-8 June 2018, Helsinki, Finland

Workshop “Fractals and Dimensions”, 4-8 Dec 2017, Stockholm, Sweden

Workshop on Fractals II, Aug 27-31 2017, Jerusalem, Israel

Mathematical Congress of the Americas, Section: Fractal Geometry and Dynamical Systems, July 24-28 2017, Montréal, Canada.

CMS Winter Meeting, Dec 2-5 2016, Niagara Falls, Canada.

Fractals and related fields III, September 19-25 2015, île de Porquerolles, France.

III. Wandering ETDS Seminar, 20-23 November 2014, Krakow, Poland

Mini-Workshop: Differentiable Ergodic Theory, Dimension Theory and Stable Foliations, 28 Sept. - 4 Oct. 2014, Oberwolfach, Germany

Fractal Geometry and Stochastics V, March 24-29 2014, Tabarz, Germany

ETDS Mini-Workshop, January 24-26 2014, Krakow, Poland

International Conference Beyond Uniform Hyperbolicity, May 27-June 7 2013, Bedlewo, Poland

CSM - The Second Conference of PhD Students in Mathematics, June 28-30 2012, Szeged, Hungary

Ergodic Methods in Theory of Fractals, June 20-27 2011., Kent, Ohio, Usa

Low-dimensional dynamics, November 15-19 2010., Warsaw, Poland

Transcendental dynamics, November 8-12 2010., Warsaw, Poland

Fractals in deterministic and random dynamics, October 11-15 2010., Warsaw, Poland

Renormalization in low dimensional dynamics and applications – Final CODY Meeting, December 13-17 2010., Warwick, England.

CSM - The first Conference of PhD Students in Mathematics, June 29-July 2. 2010., Szeged, Hungary

Conformal Structures and Dynamics (CODY) Third Year Conference, September 21-26. 2009., Bedlewo, Poland

Mid-term conference, March 30 - April 3, 2009, Warwick, UK

Fractal Geometry and Stochastics IV, September 8-12, 2008, Greifswald, Germany

"Fractals and multifractal structure, topics in turbulence", December 2-5, 2008, West Macedonia, Greece.

"Dynamical Systems: Geometric Structures and Rigidity", Summer school and research workshop, July 7-26, 2008, Banach Center, Bedlewo, Poland

"Fractal Geometry and Dynamics II", December 3-7, 2007, IMPAN, Warsaw

17th September 2021, Budapest