

István Kolossváry

Curriculum Vitae

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Birth: Budapest, March 20, 1988.



Sep. 1. 2019 – Research Fellow in Analysis, University of St Andrews

Feb. 1. 2019 – July 31. 2019, Assistant Lecturer, Budapest University of Technology and Economics.

Sept. 1. 2015 – Jan. 31. 2019, Assistant Research Fellow, MTA-Alfréd Rényi Institute of Mathematics.

Education

- 2012–2019 **Doctoral School of Mathematics and Computer Science**, *Budapest University of Technology and Economics (BME)*, Supervisor: Dr. Károly Simon.
Thesis title: Fractals in dimension theory and complex networks
- 2009–2012 **Masters of Applied Mathematics**, *BME*, *highest honours*, Specialized in Stochastics.
- 2006–2009 **Bachelor of Mathematics**, *BME*, *Faculty of Natural Sciences*.

Professional activities

Publications

- Articles
- **Triangular Gatzouras-Lalley-type planar carpets with overlaps**,
I. K., Károly Simon, Nonlinearity Vol. 32(9), 3294–3341, 2019.
 - **The Prime Grid. Introducing a geometric representation of natural numbers**,
I. K., István Kolossváry, submitted, [arXiv1711.02903 link](#).
 - **Pointwise regularity of parameterized affine zipper fractal curves**,
Balázs Bárány, Gergely Kiss, I. K., Nonlinearity Vol. 31(5), 1705–1733, 2018.
 - **Degrees and distances in random and evolving Apollonian networks**,
I. K., Júlia Komjáthy, Lajos Vágó, Adv. Appl. Prob. Vol. 48(3), 865–902, 2016.
 - **On the absolute continuity of the Blackwell measure**,
Balázs Bárány, I. K., Journal of Statistical Physics: Vol. 159(1), p.158–171, 2015.
 - **First Passage Percolation on Inhomogeneous Random Graphs**,
I. K., Júlia Komjáthy, Advances in Applied Probab. Vol. 47(2), 589–610, 2015.
 - **Multigraph limits and exchangeability**,
I. K., Balázs Ráth, Acta Mathematica Hungarica, Vol. 1, p. 1–34, 2011.
- Proceedings
- **Explicit Evaluation of ME(3) Membership**, *I. K., Miklós Telek, 8th Int. Conf. on Quantitative Evaluation of SysTems (QEST)*, fast abstract, pages 11–12, CTIT University of Twente, 2011

Conference talks

- 2018 oct. **Triangular Gatzouras–Lalley-type planar carpets with overlaps**, *Fractal Geometry and Stochastics 6*, Bad Herrenalb, Germany.
- 2017 dec. **Triangular Gatzouras–Lalley-type planar carpets**, *Workshop "Fractals and Dimensions"*, Institut Mittag–Leffler, Stockholm, Sweden.
- 2016 apr. **Local Regularity of Affine Zipper Fractal Curves**, *Wandering Seminar Ergodic Theory and Dynamical Systems*, IMPAN Warsaw, Poland.
- 2016 mar. **Small world phenomena for Random Apollonian Networks**, *British Mathematical Colloquium, speed talk*, Bristol, UK.

- 2015 oct. **On the local Hölder exponent of de-Rham like fractal curves**, *Fractal Geometry and Dynamics*, Bedlewo, Poland.
- 2013 aug. **Distances in random Apollonian networks**, *16th Int'l Conference on Random Structures and Algorithms*, Adam Mickiewicz University, Poznan, Poland.
- 2011 oct. **Explicit identification of the class of order 3 matrix exponential distributions**, *Young European Queueing Theorists (YEQT V) Workshop on "Stochastic Networks and Optimization"*, Eurandom, Eindhoven, Netherlands.

Conferences, workshops, study trips

- 2019 *Dynamics, measures and dimensions* poster, PL; Research School in Thermodynamic Formalism, CIRM, FR
- 2018 *Geometric Measure Theory and its Connections* poster, FIN; FGS 6, GER
- 2017 *5th Heidelberg Laureate Forum*, DE; *Arbeitsgemeinschaft: Additive Comb., Entropy, and Fractal Geom.*, Oberwolfach; *Fractals and Dimensions*, Institut Mittag-Leffler, SE
- 2016 *University of Warwick* (UK) 3 month visit, also at St. Andrews, Bristol; *Brown University/ICERM* (USA) workshop, poster; *IMPAN* (PL) Wandering seminar
- 2015 Summer school and a two week study trip at *IMPA*, Brazil; *Fractals and Related Fields III.* conference poster, France; one month visit (Simons Semester) to *IMPAN*, Poland
- 2014 *Workshop on Fractals*, Israel; *Conference on Fractal Geometry and Stochastics V*, Germany; *Workshop Probability and Graphs* poster, Eindhoven
- 2013 *Int'l Conference on Fractals and Wavelets*, India; study trip to *Universiteit Leiden*
- 2012 study trip to *University of Warwick* and *Technische Universiteit Eindhoven*

Teaching

Lectures and practical courses for various BSc and MSc engineer students in linear algebra, calculus, (partial) DEs, probability and stochastic processes in English and Hungarian.

Awards

- 2017 Scholarship of the New National Excellence Program
- 2016 Gyula König Young Researcher Award
- 2015 Hungarian National Eötvös Scholarship; BME Research Grant I. Prize
- 2011 Fellowship of the Republic of Hungary; BME "Good student, good athlete" I. Prize; II. Prize, I. Prize and special prize at the Scientific Students' Associations Conference
- 2010 17th Int'l Mathematics Competition for University Students, Third Prize, Bulgaria
- 2006 Trefort Memorial Award, given to the best overall achievement by a high school senior

Languages

English	Advanced type C state accredited exam	<i>excellent, fluent</i>
German	Intermediate type C state accredited exam	<i>out of practice</i>

Miscellaneous

- Athletics: former member of the national team, podium placings at national championships, awarded "Good student, good athlete" of Hungary in 2010.
- Other interests include hiking, teaching, playing bridge, west coast swing, photography.