

# István Kolossváry

## Short Curriculum Vitae

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🎂 Birth: Budapest, March 20, 1988.



Since September 2019 – Research Fellow in Analysis at the University of St Andrews.

### Education

- 2012–2019 **Doctoral School of Mathematics and Computer Science, Budapest University of Technology and Economics (BME)**, Thesis: Fractals in dimension theory and complex networks.
- 2006–2012 **BSc of Mathematics, MSc of Applied Mathematics (Stochastics major), BME.**

### Professional activities

Research interests **Fractals and its applications:** planar carpets, local regularity of fractal curves, Hidden Markov chains, Blackwell measure, dimension theory of non-linear iterated function systems.  
**Random graphs:** shortest paths in small worlds, Random Apollonian Networks, Bollobás-Janson-Riordan inhomogeneous RG model, algorithmic consequences, dense graph limits.

- Publications
- **Triangular Gatzouras-Lalley-type planar carpets with overlaps,** I. K., Károly Simon, *Nonlinearity* Vol. 32(9), 3294-3341, 2019.
  - **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. Probab.* 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.

- Conferences **2018:** *Geometric Measure Theory and its Connections*, FIN; *FGS 6*, GER
- Study trips **2017:** *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; *IMPAN* (PL) Wandering seminar
- 2015:** *IMPAN, Bedlewo* (PL) 1 month Simons Semester; *IMPA* (BR) visit, summer school; *Fractals and related Fields III.*, Porquerolles (FR) conference
- Previously:** *Workshops on Fractals* in Jerusalem and Cochin; *Fractal Geometry and Stochastics V*, Tabarz; *Random Structures and Algorithms*, Poznan; *Eurandom*, Eindhoven.

Talks given at several aforementioned conferences and seminars at BME, ELTE, IMPA, IMPAN.

Teaching Practical courses for various BSc and MSc engineer students in English and Hungarian.

### Miscellaneous

- Awards **2017:** 'New National Excellence Program' Scholarship; **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
- Languages **English** Advanced type C state accredited exam; **German** Intermediate type C
- Hobbies Sports in particular athletics, bridge, hiking, teaching, west coast swing, photography