

CURRICULUM VITAE  
**Károly Böröczky**

*Born:* February 10, 1964, Budapest, Hungary (nationality: Hungarian)

*Interests:* Convex Geometric Analysis, Discrete Geometry, Minkowski problem  
type Monge Ampère equations

*Marital status:* Married, having a daughter and a son

**Affiliation**

**1992– :** Alfréd Rényi Institute of Mathematics (full professor)  
Director of the Erdős Center of the Rényi Institute since 2022

**2004– :** Roland Eötvös University, Budapest (part time full professor)

**2012–2022:** Central European University, Budapest  
part time position as head of mathematics department and full professor

**Degrees, Prizes, Awards**

**2026:** Academy Prize (Hungarian Academy of Sciences)

**2015:** Rényi Prize (Alfréd Rényi Institute of Mathematics)

**2009:** FP7 Marie Curie IEF Fellowship, Barcelona, 2 years

**2006:** Doctor of Mathematical Sciences (Hungarian Academy of Sciences)

**2004:** Paul Erdős Prize (Hungarian Academy of Sciences, for  $a \leq 40$ )

**2001,2005:** Bolyai Scholarship of the Hungarian Academy of Sciences

**1998:** Széchenyi Professorship of the Hungarian Ministry of Education

**1995:** Scholarship of the Volkswagen Stiftung, half a year at Universität Siegen

**1994:** Magyary Zoltán Scholarship of the Hungarian Ministry of Education

**1993:** Candidate degree of the Hungarian Academy of Science

**1992:** PhD, University of Calgary (thesis title: Intrinsic Volumes of Finite  
Ball-Packings, date: June 3, 1992)

**1988:** Diploma (MSc) Roland Eötvös University, Budapest

### Some major publications

- K.J. Böröczky, Danylo Radchenko, João P. G. Ramos: A quantitative stability result for the sphere packing problem in dimensions 8 and 24. *J. Reine Angew. Math.*, 808 (2024), 241-270.
- K.J. Böröczky, Christos Saroglou: Uniqueness when the  $L_p$  curvature is close to be a constant for  $p \in [0, 1)$ . *Calc. Var. Partial Differential Equations*, 63 (2024), no. 6, Paper No. 154, 26 pp.
- K.J. Böröczky, M. Ludwig: Minkowski valuations on lattice polytopes. *Journal of EMS*, 21 (2019), 163-197.
- K.J. Böröczky, M. Henk, H. Pollehn: Subspace concentration of dual curvature measures of symmetric convex bodies. *Journal of Differential Geometry*, 109 (2018), 411-429.
- K.J. Böröczky, E. Lutwak, D. Yang, G. Zhang: The logarithmic Minkowski problem. *Journal of AMS*, 26 (2013), 831-852.
- K.J. Böröczky, E. Lutwak, D. Yang, G. Zhang: The log-Brunn-Minkowski inequality. *Advances in Math.*, 231 (2012), 1974-1997.
- K. Böröczky, Jr.: *Finite packing and covering*. Tracts in Mathematics, Cambridge University Press, 2004. 220 citations

### Some Recent Plenary talks

**December, 2026** CRM session of Geometric Inequalities, Montreal

**August, 2026** Convex Geometry, Prague

**January, 2024** Geometric Aspects of Partial Differential Equations, Okinawa, Japan,

**July 2023** Nonlinear Analysis and its Applications in Geometry, Beijing, China

**June 2023** Convex Geometry - Analytic aspects, Cortona, Italy

**June 2023** Geometric Valuation Theory - from convex sets to functions, CIEM, Castro Urdiales, Spain

**February 2022** Calculus of variations, UCLA, California

**December 2021** Convex geometry, Oberwolfach, Germany

**November 2021** Convexity and PDE, Hangzhou, China

**June 2021** Convex and Discrete Geometry, satellite to European Congress of Mathematicians, Slovenia

**December 2018** Convex geometry, Oberwolfach, Germany

**July 2018** Asymptotic and Geometric Analysis, satellite to International Congress of Mathematicians, Rio de Janeiro, Brasil

### Management experience

- Director, Erdős Conference Center at the Rényi Institute (2022-)
- Scientist in charge of the Simons Foundation "Targeted Grants for Institutes (2025-2027)
- *Studia Scientiarum Mathematicarum Hungarica*, Editor, 2021-
- Head of Department of Mathematics and its Applications at Central European University, Budapest, 2012-2022
- Co-Scientist in charge with Monika Ludwig (TU Wien) of the FWF-NKFIH (Austrian-Hungarian) grant "Valuations on lattice polytopes" (2017-2019)
- Scientist in charge of JustData project on the Societal Aspects of Big Data at Central European University involving the Departments of Economics, Network Science, Sociology, Mathematics and the School of Public Policy, 2017-2019.
- Scientific Secretary (1996-2000), Head of the Research Training Department (2000-2009), at Alfréd Rényi Institute of Mathematics.
- Co-ordinator of EU FP6 Marie Curie TOK project "Budalgeo", 2004-2008 (field: algebraic geometry) cooperating with Pisa, Nice, etc
- Scientist in charge of the EU FP6 Marie Curie Intra-european fellowship of András Némethi, 2004-2006, and Alex Küronya, 2006-2007 (fields: algebraic geometry).
- Co-ordinating in part EU FP6 Marie Curie TOK project "Disconvgeo", 2005-2009 (field: discrete and convex geometry), and the Budapest node of EU FP6 Marie Curie RTN Network "PHD", 2004-2008 (field: combinatorics, convex geometry).
- Scientist in charge of the Hungarian Research Grants (OTKA, NKFIH) Algebraic geometry, 1997-1999, Algebraic and discrete geometry, 2000-2002, Inequalities in convex geometry (2008-2009), Stochastic Geometry (2016-2019), Geometric inequalities (2018-2020), Valuations and Representation Theory (2019-2024), Minkowski problems (2025-2028).
- The thesis adviser of 4 Masters and 5 PhD students.

## Meetings organized

- Szeged Workshop on Convexity** (Szeged, 2022, with Ludwig (TU Wien), Fodor, Vigh)
- AIM Workshop on Symmetry and convexity in geometric inequalities** (San Jose, California, US, 2019, with Werner (Case Western) and Livshyts (Georgia Tech))
- Conference on Fluids and Variational Methods** (Budapest, 2019, with Szeke-lyhidi (Leipzig))
- Szeged Workshop on Convexity** (Szeged, 2019, with Ludwig (TU Wien), Fodor, Vigh)
- JustData Workshop on the Societal Aspects of Big Data** (Budapest, 2018, with Kertesz)
- Workshop on Differential Equations** (Budapest, 2018)
- Conference on Discrete Geometry and Convexity** (Budapest, 2017, with Ambrus, Furedi)
- Discrete Geometry Fest** (Budapest, 2017, with Fodor)
- Summer School on Low Dimensional Topology** (Budapest, 2016, with Stipsicz)
- Geometry Mini-symposium at the Austrian-Hungarian joint meeting** (Győr, 2015, with Ludwig (TU Wien))
- László Fejes Tóth Centennial** (Budapest, 2015, with Bárány, G. Fejes Tóth, Pach)
- Workshop on Discrete Geometry** (Budapest, 2009)
- Workshop on Discrete and Convex Geometry** (Budapest, 2008, with Bárány, Böröczky Sr, Heppes, Pach)
- Intuitive Geometry Conference 7, in Memoriam László Fejes Tóth** (Budapest, 2008, with Bárány, Böröczky Sr, Heppes, Pach)
- Geometry Fest** (Budapest, 2007, with Böröczky Sr, Fodor, Harborth (TU Braunschweig) and Kuperberg (Auburn))
- Workshop on Invariants in Low-dimensional topology** (Budapest, 2003, with Stipsitz)
- Programme in Higher dimensional varieties and Rational points** (Budapest, 2001, with Kollar (Princeton), Szamuely)

**Summer School on Low Dimensional Topology** (Budapest, 1998, with Stipsitz)

**EMS Summer School on Algebraic Geometry** (Eger, 1996, with Kollar (Princeton))

**Workshops on Convexity** (Budapest, 1995, 1997, 2003, with Gábor Fejes Tóth)

### **Visits**

**2022-2023 Academic year** ETH Zürich

**2021-2022 Academic year** UC Davis, Davis, CA, USA

**2009-2010, 2011-2012 Academic years** FP7 Marie Curie IEF Fellowship, UPC, Barcelona

**2010-2011 Academic year** NYU-Poly, New York, USA

**2009:** Université de Paris Est Marne-la-Vallée, France, two months

**2008:** UPC, Barcelona, Spain, two months

**2008:** University College London, London, England, two months

**2007:** visiting professor, University of Pisa, Italy, two months

**2006:** visiting professor, UPC, Barcelona, Spain, four months

**2006:** visiting professor, University of Nice, France, two months

**2002:** visiting professor, Ohio-State University, Columbus, OH, US, three months

**1999:** visiting professor, Western Washington University, Bellingham, WA, three months

**1999:** visiting professor, University College London, London, England, three months

**1996:** Volkswagen Stiftung scholar, Universität Siegen, Germany, one month

**1996:** visiting professor, University of Calgary, Canada, one month

**1995:** Volkswagen Stiftung scholar, Universität Siegen, Germany, half a year

**1993:** visiting professor, University of Calgary, Canada, six weeks

### **Teaching experience in English**

(Calculus, Lin. algebra, Probability, Complex Analysis, Algebraic topology, Convex geometry)

**2022-23 Academic year:** ETH, Zürich, Nachdiplom lectures for PhD students

**2021-22 Academic year:** UC Davis, CA, USA

**2012-2021:** Central European University, Budapest

**2010-2011 Academic year:** NYU, New York, USA

**2005-2008:** Central European University, Budapest

**2002:** Ohio-State University, Columbus, OH, US, Fall term

**1999:** Western Washington University, Bellingham, WA, USA, Fall term

**1999:** University College London, London, England, Winter term

**1996-2009:** Budapest Semesters in Mathematics, Western Maryland College

**1989-1992:** tutoring (also some stand up tutorials) at the University of Calgary

### **In Hungarian:**

**1993– :** Both undergraduate and graduate courses at Roland Eötvös University, Budapest

**1993–1997:** First year courses at the University of Economics, Budapest (approx. 100 students)

### **Committees**

**2018-2020** Mathematical Committee, Hungarian Scientific Fund

**2013-2020** Doctoral Program Committee, Department of Mathematics, CEU

**2011-2016** Mathematical Committee, Hungarian Academy of Sciences

**2009-2011** Mathematical Committee, Hungarian Scientific Fund

**2008-2010** Committee for the Degree Doctor of Science in Mathematics, Hungarian Academy of Sciences