

## PERSONAL INFORMATION

Family name, First name: Bérczi, Kristóf  
ORCID identifier: 0000-0003-0457-4573  
Date of birth: December 19, 1984.  
Nationality: Hungarian  
URL for website: <https://cs.elte.hu/~berkri>

## EDUCATION

- 2008–2014 **Ph.D.** in Mathematics, Eötvös Loránd University, Hungary  
Title: Packings and coverings in directed graphs  
Supervisor: Prof. András Frank
- 2003–2008 **Diploma** (with Honors) in Applied Mathematics, Eötvös Loránd University, Hungary  
Title: Arborescence packing and restricted  $b$ -matchings  
Supervisor: Prof. András Frank

## CURRENT POSITION

- 2018–pres. Associate Professor, Department of Operations Research, Eötvös Loránd University  
2018–pres. Research Fellow, MTA-ELTE Egerváry Research Group, Budapest

## PREVIOUS POSITIONS

- 2016–2018 Senior Lecturer, Eötvös Loránd University  
2014–2016 Postdoctoral Research Fellow, Hungarian Academy of Sciences  
2011–2014 Assistant Research Fellow, MTA-ELTE Egerváry Research Group, Budapest

## SCIENTIFIC VISITS

- 3-month visit** Research Institute for Mathematical Sciences, Kyoto University (Dec. 2019 – Feb. 2020)  
**1-month visits** Zuse Institute, Berlin (Sept. 2010), Department of Mathematical Engineering and Information Physics, Tokyo University (Feb. 2009)

## GRANTS, FELLOWSHIPS AND AWARDS

- 2021–2026 Momentum Programme, Hungarian Academy of Sciences  
Project title: Matroid optimization and discrete convexity
- 2021–2022 DAAD PPP Programme for Project-Related Personal Exchange, Tempus Public Foundation and German Academic Exchange Service  
Project title: Simultaneous Approximation of Multi-Criteria Optimization Problems
- 2019–2020 DAAD PPP Programme for Project-Related Personal Exchange, Tempus Public Foundation and German Academic Exchange Service  
Project title: A Fixed-parameter Approach Towards Combinatorial Optimization
- 2018–2022 NKFIH-FK Grant, National Research, Development and Innovation Fund  
Project title: Matroid optimization
- 2018–2021 Bolyai+ Research Fellowship, National Research, Development and Innovation Office  
2018–2021 János Bolyai Research Fellowship, Hungarian Academy of Sciences  
2017–2018 New National Excellence Program, ÚNKP-17-4, Ministry of Human Capacities  
2014–2016 Postdoctoral Researcher Fellowship, Hungarian Academy of Sciences  
2013 Youth Prize of the Hungarian Academy of Sciences  
2008 Outstanding student of the Faculty of Natural Sciences, Eötvös Loránd University

## SUPERVISION OF PHD, MSC AND BSC STUDENTS

- 2020–pres. Tamás Schwarcz, PhD student, Eötvös Loránd University  
2020–pres. Lydia Mirabel Mendoza Cadena, PhD student, Eötvös Loránd University

2018–pres. Fekadu Tolessa Gedefa, PhD student, Eötvös Loránd University  
2009–2021 Supervisor of **15 BSc** and **9 MSc** students

### TEACHING ACTIVITIES

2009–pres. **Lectures** in Convex Optimization, Discrete Optimization, Linear Optimization, Matroid Theory, Structures in Combinatorial Optimization at Eötvös Loránd University  
2007–pres. **Practicals** in Computational Methods in Operations Research, Convex Optimization, Discrete Optimization, Discrete Mathematics, Operations Research at Eötvös Loránd University  
2007–2012 **Practicals** in Computer Science at Budapest University of Technology and Economics

### ORGANISATION OF SCIENTIFIC MEETINGS

2017 **Co-organizer** of *The 10th Japanese-Hungarian Symposium on Discrete Mathematics and Its Applications*, Budapest  
2016 **Co-organizer** of conference *100 years of matching theory in Hungary*, Hungarian Academy of Sciences, Budapest  
2014–pres. **Organizer** of the annual international *ELTE Summer School in Mathematics*, Eötvös Loránd University, Budapest

### INSTITUTIONAL RESPONSIBILITIES

2019–pres. **Committee member** of the Program for Bachelor Students, Eötvös Loránd University  
2018 **Committee member** at PhD defense of P. Györgyi, Eötvös Loránd University  
2018 **Committee member** at PhD defense of Cs. Csehi, Budapest University of Technology and Economics  
2016 **Opponent** of the PhD thesis of B. Szalkai, Eötvös Loránd University

### REVIEWING ACTIVITIES

2009–pres. **Reviews for Conferences** APPROX, ESA, EWGT, ICALP, IPCO, ISAAC, SODA, SOSA, SWAT  
2009–pres. **Reviews for Journals** *Algorithmica*, *Algorithms and Applications*, *Applied Mathematical Modelling*, *Combinatorica*, *Discrete Applied Mathematics*, *Discrete Optimization*, *Discrete Mathematics*, *Combinatorica*, *Electronic Journal of Combinatorics*, *European Journal of Combinatorics*, *Graphs and Combinatorics*, *Information Processing Letters*, *Journal of Combinatorial Optimization*, *Journal of Graph Theory*, *Mathematical Programming*, *Mathematics of Operations Research*, *Neurocomputing*, *Operations Research Letters*, *SIAM Journal on Computing*, *SIAM Journal on Discrete Mathematics*, *The Australasian Journal of Combinatorics*, *Theoretical Computer Science*

### INVITED TALKS

Jan. 2020 *Supermodularity in unweighted graph optimization: Algorithms*, International Workshop on Combinatorial Optimization and Algorithmic Game Theory, Kyoto  
May 2019 *Complexity of packing common bases in the intersection of matroids*, The 11th Hungarian-Japanese Symposium on Discrete Mathematics and Its Applications, Tokyo  
Apr. 2019 *Complexity of packing common bases*, Bellairs Workshop on Discrete Optimization, Bellairs Research Institute, Barbados  
Sept. 2018 *Matroidal maximum term rank*, Combinatorial Geometries: Matroids, Oriented Matroids and Applications, CIRM, Marseille  
May 2016 *Degree-sequences of highly-connected simple digraphs*, NII Shonan Meeting on Current Trends in Combinatorial Optimization, Shonan Village Center  
May 2014 *From digraphs to dypergraphs: paths and arborescences*, Horn formulas, directed hypergraphs, lattices and closure systems, Dagstuhl Seminar 14201

- Oct. 2012 *Restricted b-matchings*, Discrete Convexity and Optimization Workshop, Kyoto  
 Aug. 2012 *The Triangle-free 2-matching Polytope of Subcubic Graphs*, 21st International Symposium on Mathematical Programming, Berlin

#### CONFERENCE AND SELECTED SEMINAR TALKS

- Dec. 2019 *Improving the integrality gap for multiway cut*, Research Institute of Mathematical Sciences, Kyoto University  
 Oct. 2019 *Road surveillance optimization – an asymmetric vehicle routing problem with visiting frequencies*, Budapest University of Technology and Economics, Budapest  
 July 2019 *Complexity of packing common bases in the intersection of matroids*, University of Bonn  
 Apr. 2019 *Improving the integrality gap for multiway cut*, Alfréd Rényi Institute of Mathematics  
 Nov. 2018 *Improving the integrality gap for multiway cut*, London School of Economics, London  
 June 2018 *Degree sequences of highly connected simple digraphs*, Research Institute of Mathematical Sciences, Kyoto University  
 Apr. 2018 *Degree sequences of highly connected simple digraphs*, Alfréd Rényi Institute of Mathematics  
 Nov. 2017 *A tight  $\sqrt{2}$ -approximation for Linear 3-Cut*, Research Institute of Mathematical Sciences, Kyoto University  
 May 2016 *Degree-bounded simple bipartite graphs with maximum matching number*, European Chapter in Combinatorial Optimization (ECCO 2016), Budapest  
 June 2015 *Graphical degree sequences*, Summer School in Mathematics, Eötvös Loránd University  
 Sept. 2014 *Packing arborescences under matroid constraints*, The 7th Cracow Conference on Graph Theory, Rytro  
 July 2014 *Arborescence packing and its applications*, Summer School in Mathematics, Eötvös Loránd University  
 Aug. 2012 *The Triangle-free 2-matching Polytope of Subcubic Graphs*, 21st International Symposium on Mathematical Programming (ISMP 2012), Berlin  
 May. 2010 *Restricted b-Matchings In Degree-Bounded Graphs*, The 14th Conference on Integer Programming and Combinatorial Optimization (IPCO 2010), Lausanne  
 Feb. 2009 *Packing arborescences*, Research Institute of Mathematical Sciences, Kyoto University  
 Jan. 2009 *Packing arborescences*, University of Tokyo