Tamás Kói

Date of birth: 26th of January, 1986
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Education:

2009:	MSc in Mathematics, Budapest University of Technology and Economics, diploma with honours, specialized in stochastics, title of the Hungarian thesis in English: “Belief Propagation algorithm and its applications”, supervisor: Prof. Imre Csiszár
2017:	PhD in Mathematics and Computer Science, Budapest University of Technology and Economics, title of the thesis: „Error exponents for communication models with multiple codebooks and the capacity region of partly asynchronous multiple access channel", supervisor: Prof. Imre Csiszár

Professional experience:

2012-:	BME, Mathematical Institute, Department of Stochastics, staff member first as a teaching assistant later as an assistant professor
2013-2015:	part-time research assistant at the MTA-BME Stochastics Research Group
2009-2012:	PhD student at BME (research and teaching duties)
2006-2009:	I participated in teaching of engineer students at BME

Language skills:

Hungarian:	Mother tongue
English:	State language certificate, advanced level
French:	State language certificate, intermediate level

Journal papers - information theory and statistics:

- I. Csiszár, L. Farkas, T. Kói: Error Exponents for Asynchronous Multiple Access Channels, Controlled Asynchronism may Outperform Synchronism, submitted to IEEE Transactions on Information Theory
- L. Farkas, T. Kói: Universal Random Access Error Exponents for Codebooks of Different Blocklengths, IEEE Transactions on Information Theory, vol. 64, pp. 2240-2252, Apr. 2018 (substantially extended version of the second ISIT2017 conference paper below)
- L. Farkas, T. Kói: Random Access and Source-Channel Coding Error Exponents for Multiple Access Channels, IEEE Transactions on Information Theory, vol. 61, pp. 3029-3040, Jun. 2015, (substantially extended version of the ISIT2013 conference paper below)
- L. Farkas, T. Kói: On capacity regions of discrete asynchronous multiple access channels, Kybernetika 50 no. 6, 1003-1031, 2014, it can be downloaded from http://www.kybernetika.cz/content/2014/6/1003 (substantially extended version of the ISIT2011 conference paper below)
- M. Bolla, T. Kói, A. Krámli: Testability of minimum balanced multiway cut densities, Discrete Applied Mathematics 160 (2012), 1019-1027.

Journal papers - applied statistics:

- K. Vörös, T. Kói, D. Magyar, P. Rudnai, A. Páldy: The influence of air pollution on respiratory allergies, asthma and wheeze in childhood in Hungary. Minerva Pediatr., 2019
- Vörös K, Bobvos J, Varró JM, Málnási T, Kói T, Magyar D, Rudnai P, Páldy A. (2018a) Investigation of the impacts of long-term ragweed pollen load and other potential risk factors on ragweed pollen allergy among schoolchildren in Hungary, Ann Agric Environ Med, 25(2):307-313.

Refereed conference papers:

- L. Farkas, T. Kói: Two contributions to error exponents for asynchronous multiple access channel, Int. Symp. Inform. Theory Proc. (ISIT) 27 (2019), 2664-2668.
- L. Farkas, T. Kói: Contributions to successive decoding for multiple access channels, ISITA 2018, 570-574.
- L. Farkas, T. Kói, I. Csiszár: Error exponents for sparse communication, Int. Symp. Inform. Theory Proc. (ISIT) 25 (2017), 3145-3149.
- L. Farkas, T. Kói: Universal Random Access Error Exponents for Codebooks of Different Word-Lengths, Int. Symp. Inform. Theory Proc. (ISIT) 25 (2017), pp. 3150-3154.
- L. Farkas, T. Kói: Controlled Asynchronism Improves Error Exponent, Int. Symp. Inform. Theory Proc. (ISIT) 23 (2015), 2638–2642
- L. Farkas, T. Kói: Universal Error Exponent for Discrete Asynchronous Multiple Access Channels, Int. Symp. Inform. Theory Proc. (ISIT) 22 (2014), 2944–2948.
- L. Farkas, T. Kói: Random Access and Source-Channel Coding Error Exponents for Multiple Access Channels, Int. Symp. Inform. Theory Proc. (ISIT) 21 (2013), 374–378.
- L. Farkas, T. Kói: Capacity regions of partly asynchronous multiple access channels, Int. Symp. Inform. Theory Proc. (ISIT) 20 (2012), 3018–3022
- L. Farkas, T. Kói: Capacity regions of discrete asynchronous multiple access channels, Int. Symp. Inform. Theory Proc. (ISIT) 19 (2011), 2273–2277.

Conferences, summer schools:

2019:	IEEE International Symposium on Information Theory, Paris, France (paper contribution, **talk**)
2018:	International Symposium on Information Theory and its Applications, Singapore (paper contribution, **talk**)
2017:	IEEE International Symposium on Information Theory, Aachen, Germany (paper contributions, **talk**)

2016: IEEE International Symposium on Information Theory, Barcelona, Spain (poster contribution, **poster presentation**)

2016: Nexus of Information and Computation Theories Secrecy and Privacy Theme, Paris, France (participant)

2016: Nexus of Information and Computation Theories Tutorial Week at CIRM, France (pariticipant)

2015: IEEE International Symposium on Information Theory, Hong Kong Special Administrative Region of the People's Republic of China (paper and poster contributions, **poster presentation**)

2013: IEEE International Symposium on Information Theory, Istanbul, Turkey (paper contribution, **talk**)

2013: Workshop on Statistics for Complex Networks: Theory and Applications, Eindhoven, Netherlands (participant)

2012: IEEE International Symposium on Information Theory, Cambridge, USA (paper contribution, **talk**)

2011: IEEE International Symposium on Information Theory, Saint Petersburg, Russia (paper contribution)

2010: SPSS Summer School, Veszprém, Hungary (participant)

2010: 1st Conference of PhD Students in Mathematics, Szeged, Hungary (**talk**)

2007: 37th International Probability Summer School, Saint-Flour, France (participant)

2006: Athens programme, mini-course in Cryptography, École Nationale Supérieure de Tecniques Avancées, Paris, France (participant)

Other experience and skills:

- Programming skills: R (profound knowledge), Python (basic knowledge)
- I am a member of the Statistics and Mathematical Modeling Consulting Group of the BME Mathematical Institute (https://math.bme.hu/statmodgroup?language=en)
- In 2020 I participated in an industrial project supported by ENRAVEL and MAGEOSZ
- In 2014 and 2019 I participated in industrial projects supported by Nokia Solutions and Networks Kft
- In 2013 I got BSc pre-degree certificate in quantitative economics stating that all course-units have been completed from Corvinus University of Budapest
- In 2012 I participated in a research project supported by Tesco Hungary