

Tamás Kói

Date of birth: 26th of January, 1986

Nationality: Hungarian

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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 as assistant lecturer
- 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:

- 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. Kóí, A. Krámlí: Testability of minimum balanced multiway cut densities, *Discrete Applied Mathematics* 160 (2012), 1019-1027.

Refereed conference papers:

- L. Farkas, T. Kóí and Imre Csiszár: Error exponents for sparse communication, *Int. Symp. Inform. Theory Proc. (ISIT)* 25 (2017), 3145-3149.
- L. Farkas, T. Kóí: 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. Kóí: Controlled Asynchronism Improves Error Exponent, *Int. Symp. Inform. Theory Proc. (ISIT)* 23 (2015), 2638–2642
- L. Farkas, T. Kóí: Universal Error Exponent for Discrete Asynchronous Multiple Access Channels, *Int. Symp. Inform. Theory Proc. (ISIT)* 22 (2014), 2944–2948.
- L. Farkas, T. Kóí: 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. Kóí: Capacity regions of partly asynchronous multiple access channels, *Int. Symp. Inform. Theory Proc. (ISIT)* 20 (2012), 3018–3022
- L. Farkas, T. Kóí: Capacity regions of discrete asynchronous multiple access channels, *Int. Symp. Inform. Theory Proc. (ISIT)* 19 (2011), 2273–2277.

Conferences, summer schools:

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| 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 (participant) |
| 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 Techniques Avancées, Paris, France (participant)

Other selected talks:

- Technical University Munchen, talk titled „Random Access and Source-Channel Coding Error Exponents for Multiple Access Channels”, 2015
- BME Stochastics Seminar, talk titled „Random Access and Source-Channel Coding Error Exponents for Multiple Access Channels”, 2014
- Seminar of Department of Probability Theory and Statistics ELTE: talk titled „Capacity regions of partly asynchronous multiple access channels”, 2013
- BME Internet Math Seminar, Hungarian talk titled „Súlyozott gráfok paramétereinek becslése”, 2009
- I gave talks regularly on the Stochastics Learning Seminar of the Department of Stochastics of BME
- I reported on my research progress within the confines of Stochastics PhD student reports of BME Stochastics Seminar several times

Others:

- In 2014 I participated in an industrial project 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
- In 2011 I made the statistical analysis of medical data (<http://www.akademiai.com/content/v6q221g13012k027/>)
- In 2008 I got the award for Applied Mathematics at the Scientific Conference for Students at BME