

Rafael G. L. D'Oliveira

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Born: April 15, 1988 - Rio de Janeiro - Brazil

Employment

- 2018-Current Postdoctoral Research Associate
Rutgers University (USA)
Supervisor: Salim El Rouayheb
- 2017-2017 Postdoctoral Research Associate
Illinois Institute of Technology (USA)
Supervisor: Salim El Rouayheb

Education

- 2013-2017 PhD in Applied Mathematics
University of Campinas (Brazil)
Advisor: Marcelo Firer
Funded by Capes
- 2015-2016 Research Internship
Telecom Paristech (France)
Supervisor: Patrick Sole
Funded by the Science Without Borders program
- 2011-2012 MS in Mathematics
University of Campinas (Brazil)
Advisor: Marcelo Firer
Funded by CNPq
- 2006-2009 BA in Mathematics
University of Campinas (Brazil)
Advisor: Jose Plinio de Oliveira Santos
Funded by Fapesp

Research Interests

Privacy, Coding Theory, Information Theory, Discrete Geometry and Applications.

Awards

- 2017 Best Paper award at ACM CHI Conference on Human Factors in Computing Systems.

Publications

R.G.L. D'Oliveira and S. El Rouayheb, "One-Shot PIR: Refinement and Lifting", submitted.

R.G.L. D'Oliveira, S. El Rouayheb, and Muriel Médard, "The Computational Wiretap Channel", Annual Allerton Conference on Communication, Control, and Computing, 2018.

R.G.L. D'Oliveira and S. El Rouayheb, "Lifting Private Information Retrieval from Two to any Number of Messages", IEEE International Symposium on Information Theory (ISIT), 2018.

R.G.L. D'Oliveira and M. Firer, "A distance between channels: the average error of mismatched channels", Designs, Codes and Cryptography, 2018.

R.G.L. D'Oliveira and M. Firer, "Channel metrization", European Journal of Combinatorics, 2018.

W. Liu, R.G.L. D'Oliveira, M. Beaudouin-Lafon, and O. Rioul, "BIGnav: Bayesian Information Gain for Guiding Multiscale Navigation", CHI Conference on Human Factors in Computing Systems, 2017.

R. G.L. D'Oliveira and M. Firer, "Minimum dimensional Hamming embeddings", Advances in Mathematics of Communications, 2017.

R.G.L. D'Oliveira and M. Firer, "Geometry of communication channels: metrization and decoding", Symmetry: Culture and Science, Volume 27, No. 4, 2016.

R.G.L. D'Oliveira and M. Firer, "The packing radius of a code and partitioning problems: The case for poset metrics on finite vector spaces", Discrete Mathematics, 2015.

R.G.L. D'Oliveira and M. Firer, "The packing radius of a code and partitioning problems: The case for poset metrics", IEEE International Symposium on Information Theory (ISIT), 2014.

Talks Presented in International Conferences

- 2018
 - Annual Allerton Conference on Communication, Control, and Computing - Allerton, USA
 - IEEE International Symposium on Information Theory - Vail, USA
- 2017
 - ACM CHI Conference on Human Factors in Computing Systems - Denver, USA
- 2016
 - Symmetry Festival - Vienna, Austria
 - Workshop on Mathematics in Communications - Santander, Spain
- 2015
 - The Ninth International Workshop on Coding and Cryptography - Paris, France
- 2014
 - IEEE International Symposium on Information Theory - Honolulu, USA
- 2013
 - Workshop on Distance Geometry and Applications - Manaus, Brazil

Other Presentations

- 2018
 - Munich Workshop on Coding and Cryptography - Munich, Germany
- 2016
 - European School of Information Theory - Gothenburg, Sweden
 - Nexus of Information and Computation Theories - Paris, France
- 2015
 - European School of Information Theory - Zandvoort, The Netherlands
 - Talk on Hypercube Embeddings at Télécom ParisTech - Paris, France
 - SP Coding and Information School - Campinas, Brazil
- 2014
 - Many Faces of Distances - Campinas, Brazil
 - Talk on Geometry of Numbers at the University of Campinas - Campinas, Brazil
- 2013
 - Talk on Poset Metrics at the University of Campinas - Campinas, Brazil
 - II Advanced School on Cryptology and Information Security in Latin America - Florianopolis, Brazil

Event Organization

I participated in the organization of ITW 2011, Many Faces of Distances 2014 and the São Paulo Coding and Information School 2015.

Teaching Experience

I was a teacher's assistant in the following courses: Multivariate Calculus (2011,2013), Calculus III (2014), Analysis (2014) and Complex Variables (2014).

Languages

Portuguese: Native

English: Fluent (7 years in the United States)

Spanish: Fluent (4 years in Uruguay)

French: Basic (1 year in France)