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Employment

Visiting Postdoctoral Research Associate

Theory of Complex Systems Research Group,
Max Plank Institute for Mathematics in the Sciences,
Leipzig, Germany.

2018 - Onward

Visiting Postdoctoral Research Associate

Complex Systems Group,
School of Mathematical Sciences, Queen Mary University of London,
London, United Kingdom.

2017 - Present

Postdoctoral Research Fellow

Wireless Systems Laboratory,
Department of Electronic Engineering, Hanyang University,
Seoul, South Korea.

2016 - 2017

Postdoctoral Research Associate

Applied Mathematics Group,
School of Mathematics, University of Bristol,
Bristol, United Kingdom.

2015 - 2016

Education

Doctor of Philosophy, Communications Engineering,
EPSRC Centre for Doctoral Training in Communications, University of Bristol,
Bristol, United Kingdom.

2011-2017

Thesis "*Connectivity and Centrality in Dense Random Geometric Graphs*"

Supervised by Professor Carl P. Dettmann,
external examination by Professor Vito Latora and Professor Mason A. Porter.

MSci, Physics (Upper Second Class with Honours)

University of Bristol,
Bristol, United Kingdom.

2007-2011

Dissertation "*Magnetic Monopoles in Spin Ice*".

Journal Publications

which have been accepted, or which have appeared, or which are being prepared,

- A. P. Kartun-Giles, G. Bianconi "*Random simplicial complexes and clustering in complex networks*", in preparation, 2018.

- A. P. Kartun-Giles, M. Barthelemy and Carl P. Dettmann “*Betweenness centrality has universal scaling properties in random geometric networks*”, in preparation, 2018.
- A. P. Kartun-Giles, D. Krioukov, J. P. Gleeson, Y. Moreno, G. Bianconi “*Sparse power-law network model for reliable statistical predictions based on sampled data*”, Entropy: Special Issue on Graph and Network Entropies, Volume 20, Issue 4, 2018.
- A. P. Kartun-Giles and S. Kim “*Counting k-Hop Paths in the Random Connection Model*”, IEEE Transactions on Wireless Communications, Volume 17, Issue 5, 2018.
- A. P. Kartun-Giles, S. Jayaprakasam and S. Kim “*Euclidean Matchings in Ultra-Dense Networks*”, to appear, IEEE Communications Letters, 2018.
- G. Knight, A. P. Kartun-Giles, O. Georgiou, and C. P. Dettmann, “*Counting Geodesic Paths in 1D VANETs*”, IEEE Wireless Communications Letters, Volume 6, Number 1, pp. 110-113, January 2016.
- A. P. Giles, O. Georgiou, and C. P. Dettmann, “*Connectivity of Soft Random Geometric Graphs Over Annuli*”, Journal of Statistical Physics, Volume 162, Issue 4, pp 1068-1083, January 2016.

Conference Proceedings

which have appeared,

- A. P. Giles, O. Georgiou, and C. P. Dettmann, “*Betweenness Centrality in Dense Random Geometric Networks*”, Proceedings of the IEEE International Conference on Communications, London, UK, 2015

Research Funding

as principal investigator,

- EPSRC Institutional Grant, University of Bristol
“*Random Walks on Random Geometric Networks*”,
collaborative with M. D. Penrose, C. P. Dettmann, E. Estrada and M. R. Rahman.

November 2015 - November 2016, £31,500

Conference Organisation

as organiser and co-organiser,

- “*Random Walks on Random Networks*” at the British Mathematical Colloquium 2016.
Contributed talks inc. Mathew Penrose, Nathanaël Berestycki, Márton Balzás and Gourab Ray
- “*Modelling Transport Infrastructure : Connected Autonomous Vehicles and Resilience*” under the EN-CORE project based at the University of Sheffield, 2017.