Sandro Sousa

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🖥 *sandrofsousa.github.io*

Research Interest

– Dynamical processes on networks with focus on random walks
– Heterogeneity of spatial distribution on complex systems
– Applications of complex network theory to society and urban systems
– Networks approach to the analysis of data sets

Languages

Portuguese   Mother tongue
English   Full professional proficiency

Experience

Current   **PhD Research Student**, Queen Mary University of London, London, UK.
Research on quantifying the heterogeneity of spatially-embedded systems with particular interest on socio-economic segregation.

May 2016 –   **Research Associate**, University of São Paulo, BR, University College London, UK.
May 2017   Research Associate on a project between Brazilian and British academics entitled RESOLUTION where the cities of London and São Paulo were compared in respect to social segregation and transport accessibility (funded by ESRC and FAPESP).

Dec 2011 –   **Business Intelligence Architect**, *Braskem*, São Paulo, BR, Chemical and Plastics.
Jun 2014   Management of full cycle business Intelligence projects. Design, development and deployment of data solutions on the SAP ERP platform.

Oct 2010 –   **Business Intelligence Consultant**, *Accenture*, São Paulo, BR, Management Consulting.
Dec 2011   Design, development and deployment of business Intelligence solutions on the SAP platform and SQL Server databases.

Feb 2010 –   **Business Consultant**, *DBM Systems*, São Paulo, BR, IT and Services.
Oct 2010   Design, development and deployment of business processes on the TOTVS ERP platform and SQL Server Databases.

Aug 2009 –   **Business Analyst**, *Totvs*, Maringá, BR, Computer Software.
Feb2010   Design, development and deployment of business processes on the TOTVS ERP.

Jul 2008 –   **ERP Systems support Intern**, *MRV Engenharia*, Belo Horizonte, BR, Civil Engineering.
Apr 2009   Technical support to TOTVS ERP platform and Microsoft Dynamics CRM.

Education

2017–2021   **PhD in Mathematical Sciences**, *Queen Mary University of London*, London, UK.
thesis: **"Quantifying spatial heterogeneity through random walks"**

2014–2016   **MSc in Complex Systems Modelling**, *University of São Paulo*, São Paulo, BR.
thesis: **"Study of properties and robustness of the public transport network of São Paulo"**

2012–2013 **Postgraduate Certificate in Information Management and Business Intelligence**, *Business School São Paulo*, São Paulo, BR.

2006–2008 **Graduate Diploma in Computer Network Management**, *Inforium College of Technology*, Belo Horizonte, BR.

Teaching

2018-2019 Demonstrator on Probability and Statistics I (MTH4116/MTH4216) at QMUL.

2019 Demonstrator on Introduction to Computer Programming (MTH5001) at QMUL.

Scholarships and Grants

2017 **Research Studentship** Queen Mary Principal's Award, QMUL.

2016 **Research Scholarship** Technical Training Award, Sao Paulo Research Foundation (FAPESP).

2016 **Travel Grant** for the Summer School on Understanding Urban Transformations thought Data, Manchester School of Architecture.

2014 **Research Studentship** Coordenação de Aperfeicoamento de Pessoal de Nível Superior, CAPES.

Conferences, Schools and Workshops

Oct 2018 2nd Network Science Workshop, London, UK.

Sep 2018 Conference on Complex Systems, Thessalokini, GR (**talk presented**).

Jun 2018 NetSci International Conference on Network Science, Paris, FR.

May 2018 Network Micro-structures Workshop, London, UK.

Apr 2018 The Second King's Workshop on Random Graphs and Random Processes, London, UK.

Jan 2018 Next Generation Network Analytics, London, UK.

Sep 2016 DACAS Summer school on Understanding Urban Transformations through Data, Manchester, UK (**talk presented**).

Jun 2016 DACAS/ICTP Workshop on Modelling of Urban Systems, Sao Paulo, BR (**talk presented**).

Mar 2016 Workshop on Agent-Based Modelling for Social Sciences, Sao Paulo, BR.

Sep 2015 Complex Systems Digital Campus '15 – World, e-Conference (**talk presented**).

Sep 2015 School on Complex Networks and Applications to Neuroscience, Sao Paulo, BR (**talk presented**).

Computer skills

Advanced Python, Git/GitHub, LaTeX

Intermediate QGIS, OS X, SQL Database, UML, Linux

Basic R language, Netlogo