

3rd IMA Conference on the Mathematical Challenges of Big Data
Monday 10 – Tuesday 11 December 2018
DoubleTree Hilton Hotel, London – West End

PROGRAMME

Monday 10 December	
08:30 – 09:00	Registration
09:00 – 09:15	Welcome – Chair, Paulo Lisboa
09:15 – 10:00	Invited Talk: Methods of network comparison Sofia Olhede (University College London)
10:00 – 10:25	Fast pattern mining algorithms for time series datasets S. Titarenko, G. Aivaliotis, J. Palczewski (University of Leeds)
10:25 – 10:50	Computer vision-aided annotation techniques for image dataset A. Campello (Knowledge Transfer Partnership)
10:50 – 11:20	Tea/Coffee Break
11:20 – 12:05	Invited Talk: Optimization algorithms for data science Coralia Cartis (Oxford University)
12:05 – 12:30	Chromatic information visualization and separation in large-scale histological imaging data N. A. Valous, R. R. Moraleda, A. Berthel (National Center for Tumor Diseases and German Cancer Research); N. Pandey (Heidelberg University); M. Suarez-Carmona, I. Zörnig, N. Halama (National Center for Tumor Diseases); D. Jäger (University Hospital Heidelberg)
12:30 – 12:55	Dimension reduction for mass cytometry: a comparative analysis A. Konstorum (UConn Health); N. Jekel (Penn State Harrisburg); E. Vidal (Angelo State University); R. C. Laubenbacher (UConn Health and Jackson Laboratory for Genomic Medicine)
13:00 – 14:00	Lunch Break
14:00 – 14:45	Invited Talk: Academia to Industry: the challenges and opportunities of working with data in retail Noel-Ann Bradshaw and Serge Plata (Sainsbury's Argos)
14:45 – 15:10	Manifold lifting F. Goyens, C. Cartis (University of Oxford); A. Eftekhari (School of Engineering); G. Ongie (University of Chicago)
15:10 – 15:35	Resolving the tension between persistent homology and classical homology Dr I. Weiss (University of Portsmouth)
15:35 – 16:10	Tea/Coffee Break
16:10 – 16:35	Matrix Rigidity & Ill-Posedness of Robust PCA and Matrix Completion J. Tanner (University of Oxford and the Alan Turing Institute); A. Thompson and S. Vary (University of Oxford)
16:35 – 17:00	A divide and conquer algorithm for binary matrix completion M. Beckerleg, A. Thompson (University of Oxford)
19:30	Conference dinner at DoubleTree Hilton Hotel, London – West End

Tuesday 11th December	
09:15 – 10:00	Invited Talk: Does size really matter? When small data is more insightful than Big Data Armando Vieira (Direct Line)
10:00 – 10:25	Time Series Forecasting and Anomaly Detection using Machine Learning Algorithms: a Comparison of Performances G. La Malfa (Emlyon Business School)
10:25 – 10:50	Identification of Databased Models to Forecast Renewable Energy Generation M. Lachmann (WG Optimization and Optimal Control); F. Jung, C. Buskens (University of Bremen)
10:50 – 11:20	Tea/Coffee break
11:20 – 12:05	Invited Talk: Peter Beckman (Argonne National Laboratory)
12:05 – 12:30	Analysis of a large network of EV charging stations in The Netherlands R. Carvalho (Durham University)
12:35 – 13:00	Statistical Modelling of Language Across Time Using Large Text Corpora R. Carrington (University of Nottingham)
13:00 – 14:00	Lunch
14:00 – 14:25	Contextualizing Geometric Data Analysis and Related Data Analytics: A Virtual Microscope for Big Data Analytics F. Murtagh (University of Huddersfield), M. Farid (University of Derby)
14:25 – 14:50	Real-time conditional variance estimation for massive functional data M. Chaouch (United Arab Emirates University)
14:50 – 15:35	Invited Talk: Data compression with probabilistic modelling Christian Steinruecken (Cambridge University)
15:35	Close