

IDA 2013

The Twelfth International Symposium on Intelligent Data Analysis
London, UK

17TH-19TH OCTOBER 2013
THE ROYAL STATISTICAL SOCIETY (RSS)
12 ERROL STREET
LONDON, UK
EC1Y 8LX

PREAMBLE

Welcome to the Twelfth International Symposium on Intelligent Data Analysis (IDA 2013)! We received 84 submissions this year from 23 different countries covering a diverse and exciting set of topics on Intelligent Data Analysis.

This “flier” contains a number of hopefully useful details about the arrangements for the symposium.

On behalf of the IDA organising committee, we would like to thank you for your participation and we hope you have an interesting and enjoyable time here in London.

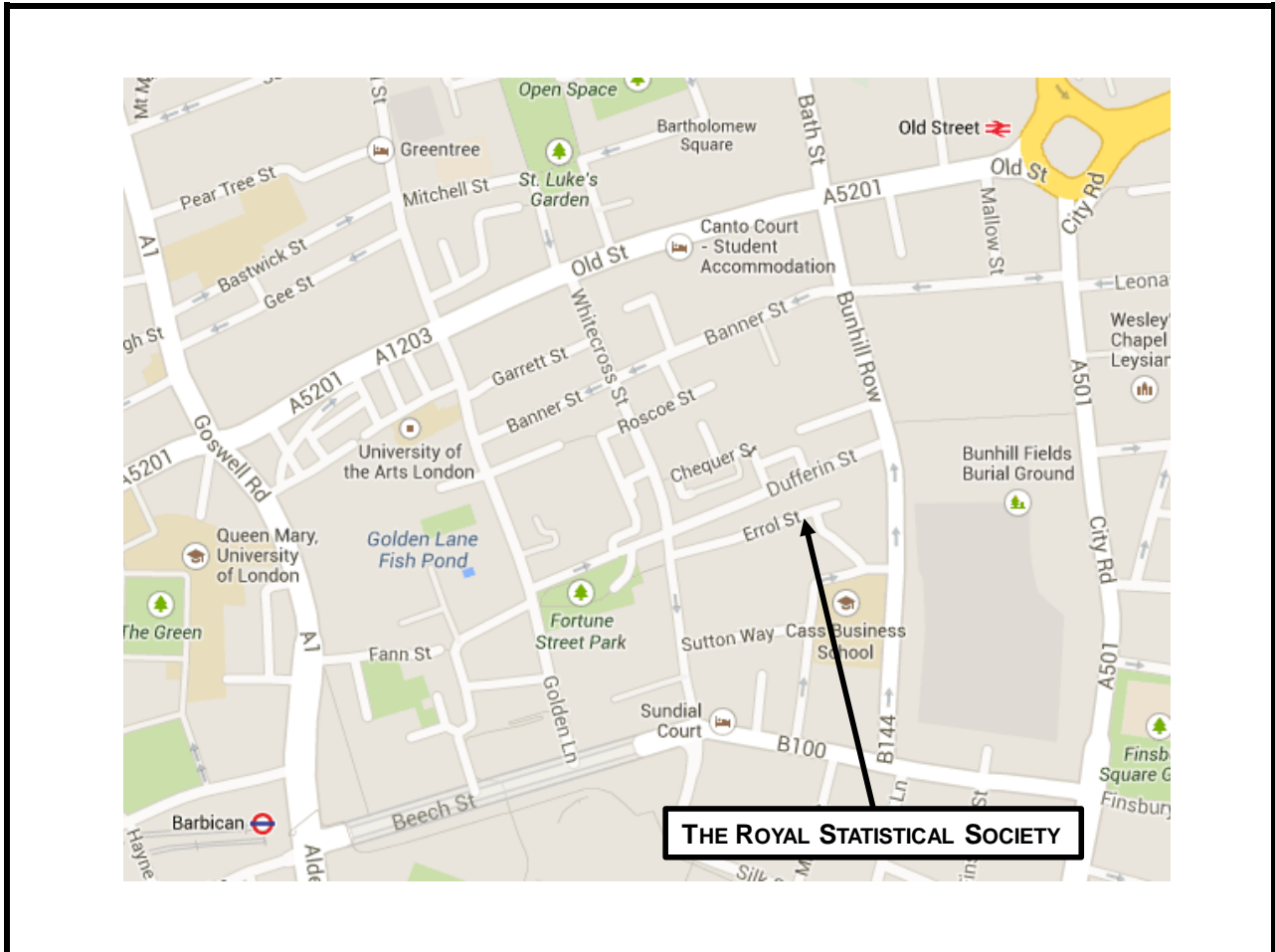
GETTING TO THE VENUE

London has one of the most extensive public transport systems in the world. It is a complex network of trains, buses, underground tube trains, trams and even a cable car. The best way to travel around is a combination of tube (the underground) and foot (Shank’s pony!). The [Transport for London](http://www.tfl.gov.uk) (<http://www.tfl.gov.uk>) website is a very useful resource detailing transport options and engineering works and has a route planner. If you feel the need to spend a lot of money on a taxi, only use one of the ubiquitous *black cabs*.

The nearest underground tube stations to the symposium venue are *Old Street* and the *Barbican*. We will be putting up a few signs from Old Street to help guide you.

Getting from Old Street. Old Street tube station is on the northern line which runs north-south, connecting important hub stations such as Euston, Kings Cross and Waterloo. Be careful when travelling on this line as it splits into two separate sections! Make sure you are on the correct branch (for Bank). When at Old Street take **exit 5 or 6** and walk eastwards for about 150 meters and then take a left turn down Bunhill Row. Walk for 200 metres past a cemetery, a pub called the Artillery Arms and the Virgin Active gym. Before the Cass Business School take another left and then an immediate left and you will arrive at the RSS! The journey on foot should take about 10 minutes. Within the cemetery you pass lies the Reverend Thomas Bayes’ grave!

Getting from the Barbican. The Barbican tube station is on the Hammersmith and City line, the Circle line and the Metropolitan line. Exit the tube station to street level, cross over Aldersgate Street and walk down Beech Street for about 250 metres. Turn left in front of a pub called the Jugged Hare and carry on for about 125 metres down Whitecross street and then turn right down Errol street. Carry on for about another 100 metres until you get to the RSS. The total journey time on foot should be about 10 minutes.



THE SYMPOSIUM VENUE

The registration desk, where you can collect your bag and proceedings will be the first port of call after you enter the venue. The main lecture hall where the talks take place is on the first floor, buffet style lunch will be served in the basement and there are numerous toilets scattered around. The registration desk will be staffed at all times in case you have any questions. Poster sessions and tea will be in the Council Chamber.

THE PROGRAMME

Thursday 17th October	
08:30	Registration Desk Opens
09:20	Welcome from General Chair
09:30	Invited Talk: David Hand
10:30	Coffee Break
11:00	Session 1
12:30	Lunch
14:00	Session 2
15:30	Coffee Break
16:00 - 17:30	Session 3
19:00	Welcome Reception
Friday 18th October	
09:00	Registration Desk Opens
09:30	Invited Talk: John Quinn
10:30	Coffee Break
11:00	Session 4
12:30	Lunch
14:00	Session 5
15:30	Poster Session
19:00	Banquet and Live Music on the Thames
Saturday 19th October	
09:00	Registration Desk Opens
09:30	Invited Talk: Tijn de Bie
10:30	Coffee Break
11:00	Session 6
12:30	Lunch
14:00	Prize Award Ceremony
15:00	IDA Business Meeting / Walking Tour
16:00	Farewell Social Event Pub Crawl

SESSION PAPERS

Session 1 Chair: Jaakko Hollmen

Graph Clustering by Maximizing Statistical Association Measures, Julien Ah-Pine, University of Lyon / ERIC Lab, France

CD-MOA: Change Detection Framework for Massive Online Analysis, Albert Bifet, Jesse Read, Bernhard Pfahringer, Geoff Holmes, Indre Zliobaite

Integrating Multiple Studies of Wheat Microarray Data to Identify Treatment-Specific Regulatory Networks, Valeria Bo, Artem Lysenko, Mansoor Saqi, Dimah Habash, Allan Tucker

Session 2

Chair: Frank Klawonn

Finding Frequent Synchronous Events in Parallel Point Processes, Christian Borgelt, David Picado-Muiño

Estimating Prediction Certainty in Decision Trees, Eduardo Costa, Sicco Verwer, Hendrik Blockeel

Interactive Discovery of Interesting Subgroup Sets, Vladimir Dzyuba, Matthijs Leeuwen

Session 3

Chair: Stephen Swift

Where does Active Learning work, Lewis Evans, Niall Adams, Christoforos Anagnostopoulos

Learning Multiple Temporal Matching for Time Series Classification, Cedric Frambourg, Ahlame Douzal-Chouakria, Eric Gaussier

Diversity-Driven Widening, Violeta N. Ivanova, Michael R. Berthold

Session 4

Chair: Liz Bradley

Towards indexing Web3D signing avatars, Kabil Jaballah, Mohamed Jemni

Learning Models of Activities Involving Interacting Objects, Cristina Manfredotti, Kim Pedersen, Howard J. Hamilton, Sandra Zilles

Model of Glaucoma Progression Through the Use of Cellular Automata, Stelios Pavlidis, Stephen Swift, Allan Tucker, Steve Counsell

Session 5

Chair: Xiaohui Liu

Towards Narrative Ideation via Cross-context Link Discovery using Banded Matrices Matic Perovšek, Bojan Cestnik, Tanja Urbančič, Simon Colton, Nada Lavrač

From the Computational Properties of Fiction Writing to the Narrative of Collaborative Work, Joseph Reddington, Fionn Murtagh, Douglas Cowie

Classifier Evaluation With Missing Negative Class Labels, Andrew Rider, Reid Johnson, Darcy Davis, T. Ryan Hoens, Nitesh Chawla

Session 6**Chair: Stelios Pavlidis**

Dynamic MMHC : a local search algorithm for dynamic Bayesian network structure learning, Ghada Trabelsi, Philippe Leray, Mounir Ben Ayed, Adel Alimi

Accurate Visual Features for Automatic Tag Correction in Videos, Hoang Tung Tran, Francois Jacquenet, France Baptiste Jeudy

Learning Compositional Hierarchies of a Sensorimotor System, Jure Žabkar, Aleš Leonardis

POSTER SESSIONS

4	Ontology Database System and Triggers, Angelina A. Tzacheva
16	Towards Comprehensive Concept Description Based on Association Rules, Petr Berka
17	A Policy Iteration Algorithm for Learning from Preference-based Feedback, Christian Wirth
20	Analysis of Cluster Structure in Large-scale English Wikipedia Category Networks, Thidawan Klaysri
21	Correcting the Usage of the Hoeffding Inequality in Stream Mining, Pawel Matuszyk
38	Detecting Events in Molecular Dynamics Simulations, Iris Ad
39	Gaussian Mixture Models for Time Series Modelling, Emil Eirola
46	Preventing Churn in Telecommunications: The Forgotten Network, Dejan Radosavljevik
47	Time Point Estimation of a Single Sample from High Throughput Experiments Based on Time-Resolved Data and Robust Correlation Measures, Nada Abidi
49	Evaluation of Association Rule Quality Measures Through Feature Extraction, Jose L. Balcazar
50	Exploratory Data Analysis through the Inspection of the Probability Density Function of the Number of Neighbors, Antonio Neme
59	Variational Bayesian PCA versus k-NN on a Very Sparse Reddit Voting Dataset, Jussa Klapuri
63	On the Importance of Nonlinear Modeling in Computer Performance Prediction, Joshua Garland
67	Gaussian Topographic Co-Clustering Model, Rodolphe Priam
75	OrderSpan: mining closed partially ordered patterns, Mickael Fabregue
78	Behavioral Clustering for Point Processes, Christian Braune
81	1d-SAX : a Novel Symbolic Representation for Time Series, Simon Malinowski
83	Multiclass Learning from Multiple Uncertain Annotations, Chirine Wolley

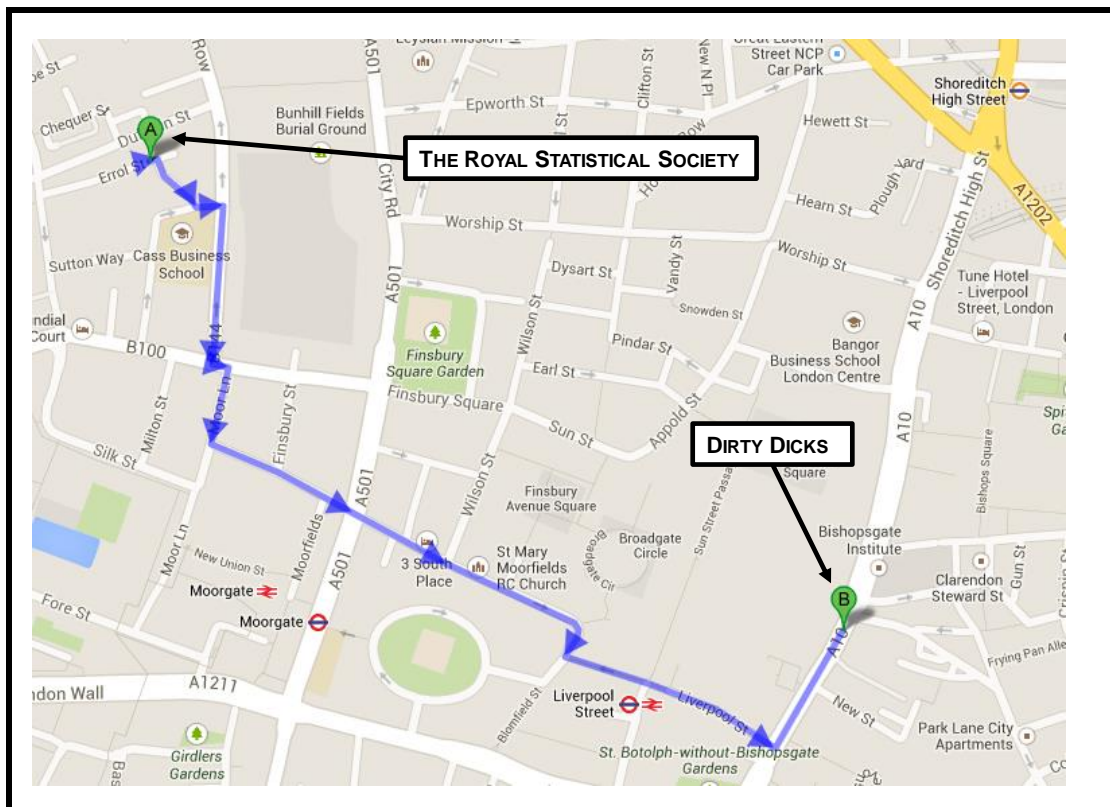
PHD POSTERS - DON'T FORGET TO VOTE FOR YOUR FAVOURITE!

1	Ontology creation for undergraduate Computer Science Curriculum, Anwaya Aras, Sakshi Pratap, Mangesh Bedekar
2	How much time do we need to learn disease progression?, Yuanxi Li, Allan Tucker
3	The application of statistical metrics into predictive functional Bayesian models of fisheries ecology, Neda Trifonova, Andrew Kenny, Allan Tucker
4	Separability in Discrete Classification Problems, Anabela Marques, Ana Sousa Ferreira, Margarida Cardoso
5	Computational identification and Analysis of CpG Site Methylation in Cancer Cells, Mohammadmehdi Ghorbani, Annette Payne, Simon J. E. Taylor, Michael Themis
7	Indexing Seismic Events using MDL Code Tables, Roel Bertens, Arno Siebes
8	A Seeded Search for the Modularisation of Sequential Source Code Check-ins, Mahir Arzoky, Stephen Swift

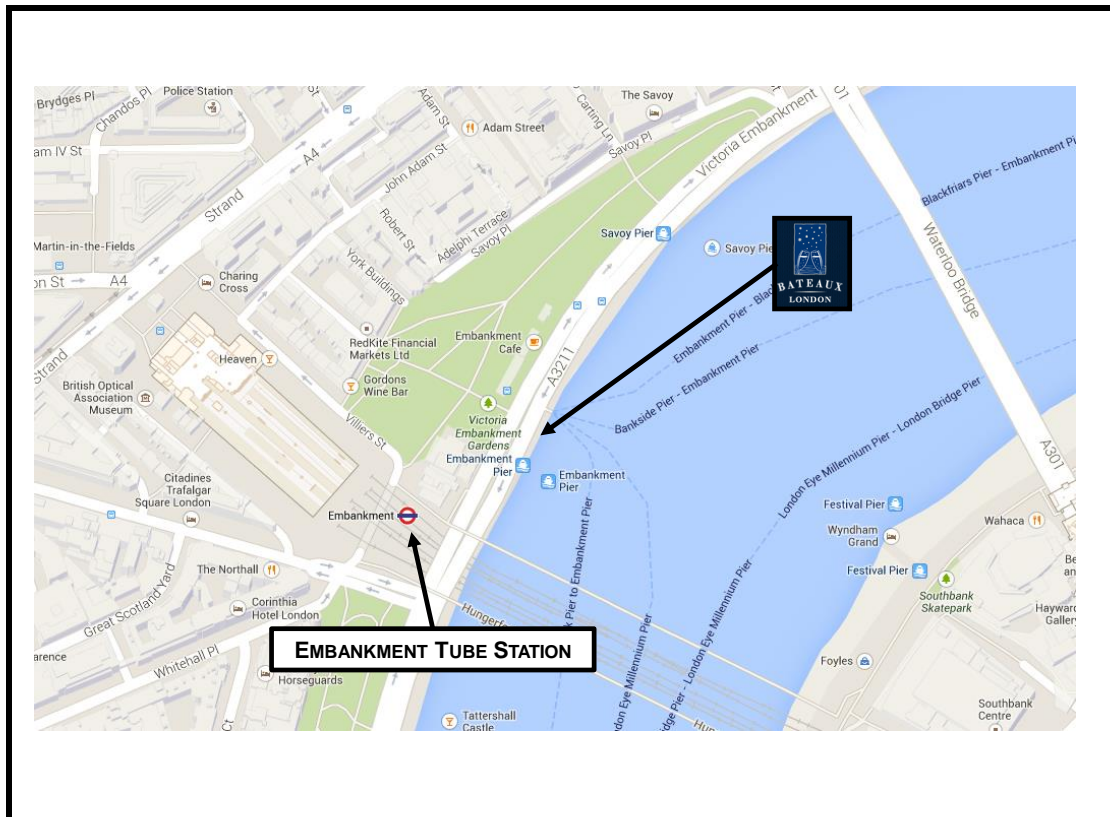
9	Concordance Clustering of the Psoriatic Transcriptome and Microbiome, Samuel Neaves, Gareth Muirhead, Lingjian Yang, Sophia Tsoka
10	Part-based data analysis with Masked Non-negative Matrix Factorization, Gabriella Casalino
11	Representing Ganglion cell distributions and neighbourhoods in human retina using Hexagonal Cellular Automata, Edward J. Burnell
12	Identifying Shadows in Video from a Single Reference Shadow, Seyed Mahdi H S Javadi, Yongmin Li, XiaoHui Liu
13	An Repository Agnostic Approach to Searching, Richard Skeggs
14	Active Learning in Parallel Universes, Christian Dietz, Michael R. Berthold
15	Bi-Clustering Gene Expression Data under Constraints, Thanh Le Van, Ana Carolina Fierro, Tias Guns, Matthijs van Leeuwen, Siegfried Nijssen, Luc De Raedt, and Kathleen Marchal
16	Data Mining and Machine Learning Tools for Combinatorial Material Science of All-Oxide Photovoltaic Cells, Abraham Yosipof, Assaf Y. Anderson, Hannah Noa Barad, Sven Rühle, Arie Zaban, Hanoch Senderowitz
18	Clustering Ensemble Method based on neighbourhood Structure, Tahani Alqurashi, Wenjia Wang
19	Non-stationary Clustering Bayesian Networks: exploring and clustering temporal processes in glaucoma, Stefano Cecon, D. Garway-Heath, D. Crabb, A. Tucker

SOCIAL EVENTS

Thursday evening 19:00. The welcome reception will be held upstairs at Dirty Dicks pub, 202 Bishopsgate, EC2M 4NR. This is very close to the conference venue and is about a 15 minute walk. One of the IDA 2013 conference organisers will be walking from the RSS setting off at 18-30. The nearest tube station is Liverpool Street station. Exit the station in the direction of Bishopsgate and once you are this street follow it north walking away from the railway station. Dirty Dick's is about 100 metres on the right hand side. The whole journey should take about 5 minutes (from Liverpool Street station). Drinks and nibbles will be provided.



Friday evening 19:00. The main symposium evening reception will consist of a Thames river cruise and a four course meal with live music. We will disembark at precisely 19:00 from embankment pier. This is directly opposite embankment tube station. The company running the event is called **Bateaux**. If you do not wish to attend, please let us know before the event as we can reuse the ticket for one of the conference helpers!



Saturday afternoon 16:00. There will be a walking tour that will start from just outside the RSS. Afterwards we plan to show you a few traditional London pubs (purely as a matter of academic interest...).

PLACES TO EAT

London has the most diverse range of food than anywhere else in the world, it's a fact! A comprehensive list of places to eat would not be practical, so the following list is of general areas and themes. This information is provided in good faith as the author's personal opinions and without legal liability on behalf of the IDA 2013 organising committee; don't come crying to us if you get charged over 20 pounds for a puny meal!

Brick Lane. Nearest London tube stations: *Aldgate East* and *Liverpool Street*. Nearest London Overground station: *Shoreditch High Street*. This area is scattered with Indian curry houses and fashionable bars; it is well worth a visit. Many of the restaurants do not sell alcohol, but some of these will allow you to bring your own! (There are several off-licenses selling alcohol in the area).

Hoxton Square. This area is near *Old Street* tube station, exit number 2. The area has a number of overpriced but fashionable bars and a number of restaurant-grills. Worth a note is the *Meat Mission*, which serves expensive but very tasty burgers. Be warned, it is on the site of an old church and has the interior décor of a satanic temple...

Leicester Square and Piccadilly Circus. The nearest tube stations share the same names as the area. These two areas are possibly the most famous places in London. In between them lies *China Town*, which unsurprisingly has many Chinese restaurants. They vary vastly; worth a mention is *Wong Kei* in that it has singularly the rudest staff in the world and you will share your table with a bunch of total-utter strangers. Most of the places to eat and drink in the square and the circus are expensive; however the *West-End Kitchen* on *Panton Street* (off the square) is reasonably priced and serves good food. The *Moon Under Water* [pub] on the square is part of the *Wetherspoon* chain and as such sells very reasonably priced food and drink of average quality.

ATTENDEES

A list will be provided...