Preface

The Society for Artificial Intelligence and Statistics (SAIS) is dedicated to facilitating interaction between researchers in Artificial Intelligence and Statistics. The Society's main responsibility is to organize the International Conference on Artificial Intelligence and Statistics, AISTATS. We acted as programme chairs for the thirteenth event, which took place during May 13-15, 2010, at Chia Laguna in Sardinia, Italy. It was preceded in nearby Pula by the Cognitive Science and Machine Learning Summer School and followed in Chia by a one-day Workshop on Active Learning and Experimental Design.

AISTATS 2010 represented a major initiative in the hitherto biennial series of conferences in that it was the first in the series to be located in Europe, the intention being henceforth to hold annual conferences, alternately in Europe and on the other side of the Atlantic. That the new venture has been successful is confirmed by statistical evidence: there were 304 submissions, representing a 50% increase over 2009 and double that in 2007, and the number of participants, 217, corresponded to a similar degree of expansion. The overall acceptance rate of about 40% was maintained at about the same level as in 2009, resulting in 125 accepted papers, of which 24 were presented orally and 101 as posters. The submissions were handled by a Senior Programme Committee ("area chairs") consisting of the following 20 individuals:

Yasemin Altun, Max Planck Institute, Tübingen Francis Bach, Ecole Normale Supérieure Hal Daumé III, University of Utah Arnaud Doucet, University of British Columbia Mark Girolami, University of Glasgow Jim Griffin, University of Kent Carlos Guestrin, Carnegie Mellon University Dirk Husmeier, Biomathematics and Statistics Scotland Bani Mallick, Texas A&M University Iain Murray, University of Toronto Brendan Murphy, University College Dublin Kevin Murphy, University of British Columbia Omiros Papaspiliopoulos, Universitat Pompeu Fabra Thomas Richardson, University of Washington Matthias Seeger, Saarland University Nathan Srebro, Toyota Technological Institute at Chicago Erik Sudderth, Brown University John Winn, Microsoft Research Cambridge Ming Yuan, Georgia Institute of Technology Hui Zou, University of Minnesota

Each area chair looked after about 15 submissions and the papers were reviewed by a Programme Committee of 306 reviewers. Each paper was reviewed by at least three reviewers and no reviewer handled more than five papers. The initial review process was followed by a discussion phase among the reviewers, orchestrated by the area chairs. The authors were given the chance to respond to the reviews and their responses were made avilable to the reviewers for comment before decisions were made. The review process used the CMT online conference management system, which proved to work well in general. We are very grateful for the substantial and dedicated work of the area chairs and reviewers, who provided high-quality feedback in the context of demanding deadlines.

The schedule of the conference included two innovations that seemed to be well received. The first of these was the decision to hold the poster sessions in the second half of each morning, followed by a substantial afternoon break and the bulk of the oral presentations in the late afternoon/early evening. The second innovation was the introduction of "breaking news abstracts". These items were submitted as one-page abstracts, they were very lightly reviewed and they were presented as posters. However, they did not qualify for publication as papers in the Proceedings.

In addition to all the contributed material, each day began with an invited talk. Richard Gill (University of Leiden) spoke about Forensic Statistics: Where Are We and Where Are We Going?, Simon Tavaré's (Universities of Cambridge and Southern California) talk was entitled Approximate Bayesian Computation: What, Why and How?, and John Lafferty (Carnegie Mellon University) spoke about Nonparametric Learning of Functions and Graphs in High Dimensions. All three talks were enthralling and generated uniformly positive acclaim from participants.

We are very grateful to Charles Sutton, for generating financial sponsorship from PAS-CAL2, Intel, Microsoft and Google. Intel and Microsoft sponsored the morning coffee breaks, funding from Google and PASCAL2 covered invited speaker costs and further funding from PASCAL2 covered the venue costs for the conference and poster rooms. The conference was also cosponsored by the Institute of Mathematical Statistics.

We would like to thank Mauricio Alvarez for exemplary work in creating the conference booklet and schedule, as well as for receiving the final submissions and posting them in the Journal of Machine Learning Research online Conference and Workshop Proceedings, Journal of Machine Learning Research for hosting the Proceedings, Max Welling for much advice as the conference took shape, Alessandro Lusci of Chia Laguna, all the conference participants and those who submitted the record number of papers.

Most of all, we would like to thank Neil Lawrence who, as indefatigable General Chair, obtained support from PASCAL2, created the conference website, reconnoitred the venue and performed a multitude of tasks that were necessary to ensure an exceptionally successful event. To cap it all, he deserves all the plaudits for his initiative in being the one to propose the concept of AISTATS in Europe.

Yee Whye Teh and Mike Titterington University College London and University of Glasgow

Reviewers

Gerard Govaert Ryan Adams Nicolas Chopin Felix Agakov Wei Chu Thore Graepel Alekh Agarwal Stephan Clemencon **Bobby Gramacy** Michael Collins Deepak Agarwal Alexander Grav Edoardo Airoldi Aaron Courville Jim Griffin Robert Cowell Thomas Griffiths Ayesha Ali Yasemin Altun Koby Crammer Marco Grzegorczyk Steffen Grünewälder Christophe Ambroise Botond Cseke Massih-reza Amini Padraig Cunningham Carlos Guestrin Christoforos Anagnostopoulos Marco Cuturi Vincent Guigue David Dahl Golightly Andrew Steve Hanneke Christophe Andrieu Adnan Darwiche Chris Hans Denver Dash Zaid Harchaoui Cedric Archambeau Andreas Argyriou Sujay Datta David Hardoon Peter Auer Hal Daume III Stefan Harmeling Francis Bach Jesse Davis Tamir Hazan Drew Bagnell Philip Dawid Nicolas Heess Matthias Hein Veera Baldandayuthapani Nando de Freitas Mikhail Belkin Tiil Debie Katherine Heller Shai Ben David Marc Deisenroth Christian Hennig Yoshua Bengio Xinwei Deng Ralf Herbrich Frederic Desobry Mark Herbster Alex Beskos Alina Bevgelzimer Tom Diethe Tom Heskes Danny Bickson Adrian Dobra Geoffrey Hinton Christopher Bishop Pedro Domingos Chris Holmes John Blitzer Frank Dondelinger Antti Honkela Phil Blunsom Patrik Hover Finale Doshi-Velez Daniel Hsu Natalia Bochkina Arnaud Doucet Howard Bondell Kevin Duh Merrilee Hurn Karsten Borgwardt Richard Dybowski Dirk Husmeier Jason Eisner Guillaume Bouchard Zakria Hussain Ulf Brefeld Frank Emmert-Streib Alexander Ihler Mark Briers Paul Fearnhead Tommi Jaakkola Olivier Cappe Emily Fox Laurent Jacob Peter Carbonetto Brendan Frey Alejandro Jara Francois Caron Nial Friel Rodolphe Jenatton Zoubin Ghahramani Carlos Carvalho Shane Jensen Roberto Casarin Samiran Ghosh Jing Jiang Robert Castelo Mark Girolami Adam Johansen Taylan Cemgil Amir Globerson Jason Johnson Nicolò Cesa-Bianchi Simon Godsill Ata Kaban Sounak Chakraborty Anna Goldenberg Bo Kai Kamalika Chaudhuri Sharon Goldwater Kostas Kalogeropoulos Silvia Chiappa Geoffrey Gordon Nikolas Kantas Max Chickering Isobel Claire Gormley Bert Kappen Dimitris Karlis Seungjin Choi Dilan Gorur

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 $Suresh\ Venkatasubramanian$

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Kai Yu

Yaming Yu Ming Yuan

Mikhail Zaslavskiy Luke Zettlemoyer

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Jiji Zhang
Tong Zhang
Yiyun Zhang
Alice Zheng
Jianhui Zhou
Jerry Zhu
Ji Zhu

Onno Zoeter Hui Zou