9th Conference on Bayesian Nonparametrics

June 10–14, 2013
Amsterdam, The Netherlands

Preliminary program

May 16, 2013
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tbody>
<tr>
<td>9:00 – 9:05</td>
<td>Opening</td>
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<tr>
<td>9:05 – 10:05</td>
<td>Special invited lecture I</td>
<td>Chair: Peter Green (Bristol)</td>
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<tr>
<td></td>
<td>• Gareth Roberts (Warwick)</td>
<td><em>MCMC methods for functions: modifying old algorithms to make them faster</em></td>
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<td>10:05 – 10:30</td>
<td>Coffee break</td>
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<tr>
<td>10:30 – 12:30</td>
<td>Large sample behavior of Bayes procedures</td>
<td>Chair: Bas Kleijn (Amsterdam)</td>
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<td></td>
<td>• Eduard Belitser (Eindhoven)</td>
<td><em>On frequentist coverage of credible balls</em></td>
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<td></td>
<td>• Bartek Knapik (Paris)</td>
<td><em>Semiparametric posterior limits under local asymptotic exponentiality</em></td>
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<td>• Botond Szabo (Eindhoven)</td>
<td><em>Adaptive nonparametric confidence sets from Bayes procedures</em></td>
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<td></td>
<td>• Long Nguyen (Michigan)</td>
<td><em>Borrowing strength in hierarchical Bayes: convergence of the Dirichlet base measure</em></td>
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<tr>
<td>12:30 – 14:00</td>
<td>Lunch break</td>
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<tr>
<td>14:00 – 15:30</td>
<td>Bayesian nonparametrics and machine learning</td>
<td>Organizer: Zoubin Ghahramani (Cambridge)</td>
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<td></td>
<td>• Ryan Adams (Harvard)</td>
<td><em>Using Bayesian nonparametrics for practical optimization of machine learning algorithms</em></td>
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<td></td>
<td>• Yee Whye Teh (Oxford)</td>
<td><em>Marginalized samplers for normalized random measure mixture models</em></td>
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<td>• Zoubin Ghahramani (Cambridge)</td>
<td><em>Bayesian nonparametrics models for networks and other relational data</em></td>
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<tr>
<td>15:30 – 16:00</td>
<td>Coffee break</td>
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<td>16:00 – 17:30</td>
<td>New models and simulation methods in Bayesian nonparametrics</td>
<td>Organizer and chair: Stephen Walker (Kent)</td>
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<td></td>
<td>• Ramses Mena (Mexico)</td>
<td><em>On some Markovian processes derived from Bayesian approaches</em></td>
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<td>• Alejandro Jara (Chile)</td>
<td><em>Fully nonparametric regression for compositional data using dependent multivariate Bernstein polynomials</em></td>
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<td>• Simon Guillotte (Québec)</td>
<td><em>A sieves model for copulas</em></td>
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<td>18:30 – 20:00</td>
<td>Welcome reception</td>
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<td>Time</td>
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<td>Chair/Presenter (Institution)</td>
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| 9:00 – 10:00 | Special invited lecture II                                              | Aad van der Vaart (Leiden)   | • **David Dunson** (Duke)  
  *Bayesian nonparametric modeling: Emerging directions*             |
| 10:00 – 10:30| Coffee break                                                           |                               |                                     |
| 10:30 – 12:30| Nonparametric modeling of functions and objects                        | Sonia Petrone (Bocconi)       | • **Chris Holmes** (Oxford)  
  *Bayesian nonparametric rank regression models*                    |
|              |                                                                        |                               | • **Emily Fox** (Seattle)   
  *Determinantal Point Processes on Continuous or Large, Countable Spaces* |
|              |                                                                        |                               | • **Peter Green** (Bristol)  
  *Bayesian nonparametric changepoint analysis and segmentation*    |
|              |                                                                        |                               | • **Luis Nieto-Barajas** (Mexico)  
  *Bayesian semiparametric analysis of short- and long-term hazard ratios with covariates* |
| 12:30 – 14:00| Lunch break                                                            |                               |                                     |
| 12:30 – 14:00| Young statistician’s lunch meeting                                     | Aurora room.                  |                                     |
| 14:00 – 15:30| Asymptotic behavior of posterior distributions                        | Harry van Zanten (Amsterdam) | • **Ismael Castillo** (Paris)  
  *On nonparametric Bernstein-von Mises theorems*                   |
|              |                                                                        |                               | • **Bas Kleijn** (Amsterdam)  
  *Criteria for Bayesian consistency*                               |
|              |                                                                        |                               | • **Surya Tokdar** (Duke)     
  *Additive Gaussian process regression for large \( p \) small \( n \)* |
| 15:30 – 16:00| Coffee break                                                           |                               |                                     |
| 16:00 – 17:30| Machine learning                                                       | Michael Jordan (Berkeley)     | • **Tamara Broderick** (Berkeley)  
  *Clusters and features from combinatorial stochastic processes* |
|              |                                                                        |                               | • **Vinayak Rao** (Duke)      
  *Constructing dependent probability measures from completely random measures* |
|              |                                                                        |                               | • **John Paisley** (Berkeley)  
  *Hierarchical topic modeling with nested hierarchical Dirichlet processes* |
| 18:00–20:00  | Poster Session I (refreshments served)                                |                               | Poster presentations from authors whose surname starts with A–L.
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<thead>
<tr>
<th>Time</th>
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<th>Speaker(s)</th>
<th>Title/Abstract</th>
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<tr>
<td>9:00 – 10:00</td>
<td>Special invited lecture III</td>
<td>Michael Jordan (Berkeley)</td>
<td>MAD-Bayes: MAP-based asymptotic derivations from Bayes</td>
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<td>chair: Aad van der Vaart (Leiden)</td>
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<td>10:00 – 10:30</td>
<td>Coffee break</td>
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<td>10:30 – 12:30</td>
<td>Distributions of random partitions</td>
<td>Konstantina Palla (Cambridge)</td>
<td>A dependent partition-valued process</td>
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<td>chair: Antonio Lijoi (Pavia)</td>
<td>James Lloyd (Cambridge)</td>
<td>Random function priors for exchangeable databases</td>
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<td>Sonia Petrone (Bocconi)</td>
<td>Improving prediction in Bayesian mixture models for nonparametric regression</td>
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<td>Lancelot James (Hong Kong)</td>
<td>Generalized gamma priors</td>
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<td>12:30 – 14:00</td>
<td>Lunch break</td>
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<td>14:00 – 15:30</td>
<td>Bayesian adaptation</td>
<td>Sergios Agapiou (Warwick)</td>
<td>Posterior Contraction rates for Bayesian inverse problems</td>
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<td>organizer and chair: Judith Rousseau (Paris)</td>
<td>Lucien Birgé (Paris)</td>
<td>About Bayesian (and frequentist) model selection</td>
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<td>Catia Scricciolo (Bocconi)</td>
<td>Adaptive Bayesian density estimation using kernel mixtures</td>
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<td>15:30 – 16:00</td>
<td>Coffee break</td>
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<tr>
<td>16:00 – 17:30</td>
<td>Nonparametric Bayes models for constrained shapes and surfaces</td>
<td>Lauren Hannah (Columbia)</td>
<td>Multivariate Bayesian Convex Regression</td>
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<td>organizer and chair: David Dunson (Duke)</td>
<td>Tom Shively (Austin)</td>
<td>Shape-constrained nonparametric high-dimensional function estimation usingBayesian additive regression trees</td>
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<td>Anuj Srivastava (Florida)</td>
<td>On utilizing geometries of function spaces for registration and shape analysis</td>
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<td>19:00 – 23:00</td>
<td>Conference Dinner</td>
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Thursday, June 13

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<th>Time</th>
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<tr>
<td>8:30 – 10:00</td>
<td>Bayesian testing in large parameter spaces</td>
<td>organizer and chair: Yongdai Kim (Seoul)</td>
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<td>• <strong>Taeryon Choi</strong> (Korea) <em>Goodness of fit testing based on a nonparametric Bayes factor</em></td>
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<td>• <strong>James Scott</strong> (Austin) <em>Multiple testing in non-exchangeable settings</em></td>
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<td>• <strong>Hani Doss</strong> (Florida) <em>Hyperparameter and model selection for nonparametric Bayes problems via Radon-Nikodym derivatives</em></td>
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<td>10:00 – 10:30</td>
<td>Coffee break</td>
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<tr>
<td>10:30 – 12:30</td>
<td>Structures, identifiability and computing</td>
<td>chair: Fernando Quintana (Chile)</td>
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<td>• <strong>Creighton Heaukulani</strong> (Cambridge) <em>The combinatorial structure underlying the negative binomial process</em></td>
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<td>• <strong>Jim Griffin</strong> (Kent) <em>Some sequential Monte-Carlo methods for Bayesian nonparametric inference</em></td>
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<td>• <strong>Stephen G. Walker</strong> (Kent) <em>Issues with the non-identifiability of the mixture of Dirichlet process model</em></td>
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<td>• <strong>François Caron</strong> (INRIA) <em>Bayesian nonparametric models for bipartite graphs</em></td>
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<td>12:30 – 14:00</td>
<td>Lunch break</td>
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<tr>
<td>14:00 – 15:30</td>
<td>Extensions of beta processes and Dirichlet processes</td>
<td>organizer: Nils Lid Hjort (Oslo) chair: Zoubin Ghahramani (Cambridge)</td>
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<td>• <strong>Sinead Williamson</strong> (Carnegie Mellon) <em>Parallel Markov chain Monte Carlo for nonparametric mixture models</em></td>
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<td>• <strong>Nils Lid Hjort</strong> (Oslo) <em>Gamma- and beta-tailed beta processes</em></td>
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<td>• <strong>Yongdai Kim</strong> (Seoul) <em>Bayesian analysis of the proportional hazards model with time-arguing coefficients: Posterior convergence rate and Bayes factor consistency</em></td>
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<td>15:30 – 16:00</td>
<td>Coffee break</td>
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<tr>
<td>16:00 – 17:30</td>
<td>Applications in biostatistics and beyond</td>
<td>organizer and Chair: Peter Müller (Austin)</td>
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<td>• <strong>Marian Farah</strong> (Cambridge) <em>Bayesian nonparametric modeling of HIV biomarker trajectories for the estimation of infection recency</em></td>
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<td>• <strong>Lorenzo Trippa</strong> (Harvard) <em>Analysis of somatic mutation data in cancer</em></td>
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<td>• <strong>Michele Guindani</strong> (Texas) <em>Bayesian nonparametric estimation of targeted agent effects on biomarker change to predict clinical outcome</em></td>
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<td>18:00 – 20:00</td>
<td>Poster Session II (refreshments served)</td>
<td>Posters of presenters with last name starting with M–Z.</td>
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### Friday, June 14

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<tr>
<th>Time</th>
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<tr>
<td>8:30 – 10:00</td>
<td><strong>Dependent random partitions and processes</strong>&lt;br&gt;Organizer and chair: Igor Prünster (Turin)</td>
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<td>- Antonio Lijoi (Pavia)&lt;br&gt;Clustering and borrowing of information for a class of dependent priors</td>
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<td>- Steven MacEachern (Ohio)&lt;br&gt;Robust inference with nonparametric Bayesian models</td>
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<td>- Fernando Quintana (Chile)&lt;br&gt;On extensions of covariate-dependent product partition models</td>
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<td>10:00 – 10:30</td>
<td>Coffee break</td>
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<tr>
<td>10:30 – 11:00</td>
<td><strong>Interaction between probability theory and Bayesian nonparametrics</strong>&lt;br&gt;Chair: Lancelot James (Hong Kong)</td>
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<td>- Alexander Gnedin (London)&lt;br&gt;A renewal theory approach to sampling under slow variation</td>
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<td>- Silke Rolles (Munich)&lt;br&gt;Bayesian analysis for reversible Markov chains</td>
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<td>11:30 – 12:30</td>
<td><strong>Special invited lecture IV</strong>&lt;br&gt;Chair: Subhashis Ghosal (North Carolina)</td>
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<td>- Judith Rousseau (Paris)&lt;br&gt;Some recent advances in the asymptotic properties of Bayesian nonparametric approaches</td>
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<td>12:30 – 12:45</td>
<td>Closing</td>
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