

# **9th Conference on Bayesian Nonparametrics**

June 10–14, 2013  
Amsterdam, The Netherlands

## **Preliminary program**

May 16, 2013

## Monday, June 10

9:00 – 9:05	<b>Opening</b>
9:05 – 10:05	<p><b>Special invited lecture I</b> chair: Peter Green (Bristol)</p> <ul style="list-style-type: none"> <li>• <b>Gareth Roberts</b> (Warwick) <i>MCMC methods for functions: modifying old algorithms to make them faster</i></li> </ul>
10:05 – 10:30	Coffee break
10:30 – 12:30	<p><b>Large sample behavior of Bayes procedures</b> chair: Bas Kleijn (Amsterdam)</p> <ul style="list-style-type: none"> <li>• <b>Eduard Belitser</b> (Eindhoven) <i>On frequentist coverage of credible balls</i></li> <li>• <b>Bartek Knapik</b> (Paris) <i>Semiparametric posterior limits under local asymptotic exponentiality</i></li> <li>• <b>Botond Szabo</b> (Eindhoven) <i>Adaptive nonparametric confidence sets from Bayes procedures</i></li> <li>• <b>Long Nguyen</b> (Michigan) <i>Borrowing strength in hierarchical Bayes: convergence of the Dirichlet base measure</i></li> </ul>
12:30 – 14:00	Lunch break
14:00 – 15:30	<p><b>Bayesian nonparametrics and machine learning</b> organizer: Zoubin Ghahramani (Cambridge) chair: Nils Lid Hjort (Oslo)</p> <ul style="list-style-type: none"> <li>• <b>Ryan Adams</b> (Harvard) <i>Using Bayesian nonparametrics for practical optimization of machine learning algorithms</i></li> <li>• <b>Yee Whye Teh</b> (Oxford) <i>Marginalized samplers for normalized random measure mixture models</i></li> <li>• <b>Zoubin Ghahramani</b> (Cambridge) <i>Bayesian nonparametrics models for networks and other relational data</i></li> </ul>
15:30 – 16:00	Coffee break
16:00 – 17:30	<p><b>New models and simulation methods in Bayesian nonparametrics</b> organizer and chair: Stephen Walker (Kent)</p> <ul style="list-style-type: none"> <li>• <b>Ramses Mena</b> (Mexico) <i>On some Markovian processes derived from Bayesian approaches</i></li> <li>• <b>Alejandro Jara</b> (Chile) <i>Fully nonparametric regression for compositional data using dependent multivariate Bernstein polynomials</i></li> <li>• <b>Simon Guillotte</b> (Québec) <i>A sieves model for copulas</i></li> </ul>
18:30 – 20:00	Welcome reception

**Tuesday, June 11**

9:00 – 10:00	<b>Special invited lecture II</b> chair: Aad van der Vaart (Leiden) <ul style="list-style-type: none"> <li>• <b>David Dunson</b> (Duke)  <i>Bayesian nonparametric modeling: Emerging directions</i></li> </ul>
10:00 – 10:30	Coffee break
10:30 – 12:30	<b>Nonparametric modeling of functions and objects</b> chair: Sonia Petrone (Bocconi) <ul style="list-style-type: none"> <li>• <b>Chris Holmes</b> (Oxford)  <i>Bayesian nonparametric rank regression models</i></li> <li>• <b>Emily Fox</b> (Seattle)  <i>Determinantal Point Processes on Continuous or Large, Countable Spaces</i></li> <li>• <b>Peter Green</b> (Bristol)  <i>Bayesian nonparametric changepoint analysis and segmentation</i></li> <li>• <b>Luis Nieto-Barajas</b> (Mexico)  <i>Bayesian semiparametric analysis of short- and long-term hazard ratios with covariates</i></li> </ul>
12:30 – 14:00 12.30 – 14.00	Lunch break <b>Young statistician's lunch meeting.</b> Location: Aurora room.
14:00 – 15:30	<b>Asymptotic behavior of posterior distributions</b> organizer and chair: Harry van Zanten (Amsterdam) <ul style="list-style-type: none"> <li>• <b>Ismael Castillo</b> (Paris)  <i>On nonparametric Bernstein-von Mises theorems</i></li> <li>• <b>Bas Kleijn</b> (Amsterdam)  <i>Criteria for Bayesian consistency</i></li> <li>• <b>Surya Tokdar</b> (Duke)  <i>Additive Gaussian process regression for large <math>p</math> small <math>n</math></i></li> </ul>
15:30 – 16:00	Coffee break
16:00 – 17:30	<b>Machine learning</b> organizer and chair: Michael Jordan (Berkeley) <ul style="list-style-type: none"> <li>• <b>Tamara Broderick</b> (Berkeley)  <i>Clusters and features from combinatorial stochastic processes</i></li> <li>• <b>Vinayak Rao</b> (Duke)  <i>Constructing dependent probability measures from completely random measures</i></li> <li>• <b>John Paisley</b> (Berkeley)  <i>Hierarchical topic modeling with nested hierarchical Dirichlet processes</i></li> </ul>
18:00–20:00	<b>Poster Session I</b> (refreshments served) Posters of presenters with last name starting with A–L.

## Wednesday, June 12

9:00 – 10:00	<b>Special invited lecture III</b> chair: Aad van der Vaart (Leiden)
	<ul style="list-style-type: none"> <li>• <b>Michael Jordan</b> (Berkeley) <i>MAD-Bayes: MAP-based asymptotic derivations from Bayes</i></li> </ul>
10:00 – 10:30	Coffee break
10:30 – 12:30	<b>Distributions of random partitions</b> chair: Antonio Lijoi (Pavia) <ul style="list-style-type: none"> <li>• <b>Konstantina Palla</b> (Cambridge) <i>A dependent partition-valued process</i></li> <li>• <b>James Lloyd</b> (Cambridge) <i>Random function priors for exchangeable databases</i></li> <li>• <b>Sonia Petrone</b> (Bocconi) <i>Improving prediction in Bayesian mixture models for nonparametric regression</i></li> <li>• <b>Lancelot James</b> (Hong Kong) <i>Generalized gamma priors</i></li> </ul>
12:30 – 14:00	Lunch break
14:00 – 15:30	<b>Bayesian adaptation</b> organizer and chair: Judith Rousseau (Paris) <ul style="list-style-type: none"> <li>• <b>Sergios Agapiou</b> (Warwick) <i>Posterior Contraction rates for Bayesian inverse problems</i></li> <li>• <b>Lucien Birgé</b> (Paris) <i>About Bayesian (and frequentist) model selection</i></li> <li>• <b>Catia Scricciolo</b> (Bocconi) <i>Adaptive Bayesian density estimation using kernel mixtures</i></li> </ul>
15:30 – 16:00	Coffee break
16:00 – 17:30	<b>Nonparametric Bayes models for constrained shapes and surfaces</b> organizer and chair: David Dunson (Duke) <ul style="list-style-type: none"> <li>• <b>Lauren Hannah</b> (Columbia) <i>Multivariate Bayesian Convex Regression</i></li> <li>• <b>Tom Shively</b> (Austin) <i>Shape-constrained nonparametric high-dimensional function estimation using Bayesian additive regression trees</i></li> <li>• <b>Anuj Srivastava</b> (Florida) <i>On utilizing geometries of function spaces for registration and shape analysis</i></li> </ul>
19:00 – 23:00	<b>Conference Dinner</b>

## Thursday, June 13

8:30 – 10:00	<b>Bayesian testing in large parameter spaces</b> organizer and chair: Yongdai Kim (Seoul)
	<ul style="list-style-type: none"> <li>• <b>Taeryon Choi</b> (Korea) <i>Goodness of fit testing based on a nonparametric Bayes factor</i></li> <li>• <b>James Scott</b> (Austin) <i>Multiple testing in non-exchangeable settings</i></li> <li>• <b>Hani Doss</b> (Florida) <i>Hyperparameter and model selection for nonparametric Bayes problems via Radon-Nikodym derivatives</i></li> </ul>
10:00 – 10:30	Coffee break
10:30 – 12:30	<b>Structures, identifiability and computing</b> chair: Fernando Quintana (Chile)
	<ul style="list-style-type: none"> <li>• <b>Creighton Heaukulani</b> (Cambridge) <i>The combinatorial structure underlying the negative binomial process</i></li> <li>• <b>Jim Griffin</b> (Kent) <i>Some sequential Monte-Carlo methods for Bayesian nonparametric inference</i></li> <li>• <b>Stephen G. Walker</b> (Kent) <i>Issues with the non-identifiability of the mixture of Dirichlet process model</i></li> <li>• <b>Francois Caron</b> (INRIA) <i>Bayesian nonparametric models for bipartite graphs</i></li> </ul>
12:30 – 14:00	Lunch break
14:00 – 15:30	<b>Extensions of beta processes and Dirichlet processes</b> organizer: Nils Lid Hjort (Oslo) chair: Zoubin Ghahramani (Cambridge)
	<ul style="list-style-type: none"> <li>• <b>Sinead Williamson</b> (Carnegie Mellon) <i>Parallel Markov chain Monte Carlo for nonparametric mixture models</i></li> <li>• <b>Nils Lid Hjort</b> (Oslo) <i>Gamma- and beta-tilted beta processes</i></li> <li>• <b>Yongdai Kim</b> (Seoul) <i>Bayesian analysis of the proportional hazards model with time-varying coefficients: Posterior convergence rate and Bayes factor consistency</i></li> </ul>
15:30 – 16:00	Coffee break
16:00 – 17:30	<b>Applications in biostatistics and beyond</b> organizer and Chair: Peter Müller (Austin)
	<ul style="list-style-type: none"> <li>• <b>Marian Farah</b> (Cambridge) <i>Bayesian nonparametric modeling of HIV biomarker trajectories for the estimation of infection recency</i></li> <li>• <b>Lorenzo Trippa</b> (Harvard) <i>Analysis of somatic mutation data in cancer</i></li> <li>• <b>Michele Guindani</b> (Texas) <i>Bayesian nonparametric estimation of targeted agent effects on biomarker change to predict clinical outcome</i></li> </ul>
18:00 – 20:00	<b>Poster Session II</b> (refreshments served) Posters of presenters with last name starting with M–Z.

**Friday, June 14**

8:30 – 10:00	<b>Dependent random partitions and processes</b> organizer and chair: Igor Prünster (Turin) <ul style="list-style-type: none"> <li>• <b>Antonio Lijoi</b> (Pavia)  <i>Clustering and borrowing of information for a class of dependent priors</i></li> <li>• <b>Steven MacEachern</b> (Ohio)  <i>Robust inference with nonparametric Bayesian models</i></li> <li>• <b>Fernando Quintana</b> (Chile)  <i>On extensions of covariate-dependent product partition models</i></li> </ul>
10:00 – 10:30	Coffee break
10:30 – 11:30	<b>Interaction between probability theory and Bayesian nonparametrics</b> chair: Lancelot James (Hong Kong) <ul style="list-style-type: none"> <li>• <b>Alexander Gnedin</b> (London)  <i>A renewal theory approach to sampling under slow variation</i></li> <li>• <b>Silke Rolles</b> (Munich)  <i>Bayesian analysis for reversible Markov chains</i></li> </ul>
11:30 – 12:30	<b>Special invited lecture IV</b> chair: Subhashis Ghosal (North Carolina) <ul style="list-style-type: none"> <li>• <b>Judith Rousseau</b> (Paris)  <i>Some recent advances in the asymptotic properties of Bayesian nonparametric approaches</i></li> </ul>
12:30 – 12:45	<b>Closing</b>