



## International Workshop on Monte Carlo Methods for Spatial Stochastic Systems 21-23 July 2015, Brisbane, Australia

### Tuesday 21st July

08:30-9:00 Registration

9:00-9:15 Welcome and opening

9:15-10:15 **Gareth Roberts (University of Warwick)**  
*Towards not being afraid of the big bad data set*

10:15-10:45 Morning tea

10:45-11:15 **Matthew Roughan (Adelaide University)**  
*Fast generation of spatially embedded random graphs*

11:15-11:45 **Morgan Grant (The University of Queensland)**  
*Complex network simulation*

11:45-12:15 **Bruce Tabor (CSIRO)**  
*A novel bootstrap for Ripley's  $K$  derived from theory and Monte Carlo simulation*



12:15–13:15 Welcome BBQ Lunch on the Terrace

13:15–13:45 **Tim Garoni (Monash University)**

*The worm process for the Ising model is rapidly mixing*

13:45–14:15 **Matt Moores (University of Warwick)**

*Scalable inference for the inverse temperature of a hidden Potts mode*

14:15–14:45 **Rohan Shah (The University of Queensland)**

*Sequential importance resampling for graph connectivity*

14:45–15:15 Afternoon tea

15:15–16:30 Free time

### **Wednesday 22nd July**

9:30–10:30 **Adrian Baddeley (Curtin University)**

*Closure relations in spatial processes*



10:30-11:00	Morning tea
11:00-11:30	<b>Phil Pollett (The University of Queensland)</b> <i>Metapopulations in dynamic landscapes</i>
11:30-12:00	<b>Somayeh Shiri (Monash University)</b> <i>Simulation of large deviation functions of discrete stochastic traffic models</i>
12:00-13:00	Lunch
13:00-13:30	<b>Christopher Drovandi (Queensland University of Technology)</b> <i>Likelihood-free methods for spatial stochastic models of collective cell spreading</i>
13:30-14:00	<b>Dirk Kroese (The University of Queensland)</b> <i>Fitting Laguerre tessellations to tomographic image data</i>
14:00-14:30	<b>Kevin Burrage (University of Oxford and Queensland University of Technology)</b> <i>Using ideas from the numerical solution of ordinary differential equations to construct efficient methods for discrete stochastic chemical kinetics problems</i>
14:30-15:00	Afternoon tea
15:00-16:00	<b>Dirk Kroese (The University of Queensland)</b> <i>Advanced Sampling and Exploration Matlab Competition</i>



16:00-16:30 Free time

18:30 Dinner at Hillstone Restaurant, St Lucia Golf Course  
Dress: smart casual

#### Thursday 23rd July

9:15-10:15 **Robert Kohn (The University of New South Wales)**  
*Markov interacting importance samplers*

10:15-10:45 Morning tea

10:45-11:15 **Christian Davey (Monash University)**  
*A Bayesian approach for sampling from multimodal distributions*

11:15-11:45 **Slava Vaisman (The University of Queensland)**  
*Stochastic Enumeration Method for Counting Trees*

11:45-12:00 Final discussion and close

