#### **ICIC Data Analysis Workshop**

Imperial College London

5-8 September 2016

All timings within the workshop are indicative only.

#### **MONDAY 5<sup>th</sup> September**

Clore Lecture Theatre, Huxley Building

- 1.30-2.00 Registration
- 2.00 Introduction Alan Heavens
- 2.15 Basics of Bayesian Probability theory Alan Heavens
- 3.00 Exercises
- 3.30 Coffee
- 3.45 More on Bayesian Probability Jonathan Pritchard
- 4.30 Exercises
- 5.00 Talk by Geraint Harker (Winton Capital and Astronomer)
- 5.30 Check in at Beit Hall, then, drinks reception, Blackett Laboratory, Level 8 Common Room, Blackett Lab.

If you cannot enter the building, call Alan Heavens on 07752 848113.

### **TUESDAY 6<sup>th</sup> September**

Skempton Building Lecture Theatre 201

9.15 Sampling, MCMC, Metropolis-Hastings – Daniel Mortlock

10.00 Hands-on MCMC

- 11.30 Coffee
- 12.00 Hands-on
- 1.00 Lunch
- 2.00 Convergence tests Daniel Mortlock
- 2.30 Hands-on
- 3.30 Coffee and Hands-on
- 4.15 Central Limit theorem and exercise Alan Heavens
- 5.00 End of session

Free evening

#### **WEDNESDAY 7<sup>th</sup> September**

Clore Lecture Theatre, Huxley Building

- 9.15 Hands-on
- 10.30 Gibbs sampling, Hamiltonian MC Andrew Jaffe
- 11.30 Coffee
- 11.45 Hands-on
- 2.00 Generalised linear models, and Messenger fields Andrew Jaffe
- 3.00 Hands-on
- 3.30 Coffee
- 4.00 Model comparison Elena Sellentin
- 5.00 End of session
- 6.00 Barbecue. 58 Prince's Gate.

## **THURSDAY 8<sup>th</sup> September**

Clore Lecture Theatre, Huxley Building

- 9.15 Nested sampling Jonathan Pritchard
- 10.00 Hands on
- 11.30 Coffee
- 12.00 Hypothesis testing; p-values. Elena Sellentin
- 1.00 Lunch Public Engagement Discussion (optional) Roberto Trotta
- 2.00 Bayesian Hierarchical Models Alan Heavens
- 2.30 Hands on
- 3.45 Workshop Summary
- 4.00 End of workshop



# **Course Team**

Alan Heavens

Andrew Jaffe

Daniel Mortlock

← Jonathan Pritchard

Elena Sellentin











## Imperial College London

## **South Kensington Campus**

