

# Workshop “Isotropic Random Fields in Astrophysics”

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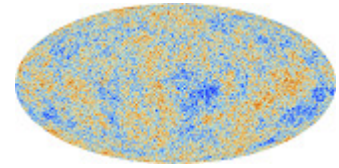
Organisers: Peter Coles and Nikolai Leonenko

29-30 June 2017

<http://ssa.cf.ac.uk/randomfields/>

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## Programme 29 June, Thursday



- 9.00 – 9.45 *Coffee and registration* in Room M/1.02  
9.45 – 10.00 *Welcome from Prof. Peter Coles and Prof. Nikolai Leonenko*
- Chair Peter Coles*
- 10.00 – 10.45 **Prof. Ethan Anderes**, University of California, Davis, USA  
Lensing and delensing the cosmic microwave background
- 10.45 – 11.30 **Dr Daniela Saadeh**, University of Nottingham, UK  
How isotropic is the Universe?
- 11.30 – 12.00 *Coffee break* in Room M/1.02
- 12.00 – 12.45 **Dr Jean-Luc Starck**, CEA Saclay, France  
Cosmic Microwave Background (CMB) field estimation
- 12.45 – 13.30 **Prof. Paolo Baldi**, University of Roma “Tor Vergata”, Italy  
Representation of Gaussian isotropic spin random fields
- 13.30 – 14.15 *Lunch*, Room M/1.02
- Chair Nikolai Leonenko*
- 14.15 – 15.00 **Prof. Anatoliy Malyarenko**, Malardalen University, Sweden  
Spectral expansions of random sections of spin and tensor bundles
- 15.00 – 15.45 **Dr Chiaki Hikage**, IPMU, Japan  
Morphological analysis of cosmological random fields using Minkowski functionals
- 15.45 – 16.00 *Coffee break* in Room M/1.02  
16.00 – 17.00 Discussion
- 19.00 **Dinner** (29 June, Thursday)  
Hotel Jurys Inn, Park Place, CF10 3UD.

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All sessions to be held in Room E/0.15, Mathematics Institute, Senghennydd Road, Cardiff

Each talk consists of 35 minutes lecture, plus 10 minutes for questions/discussion.

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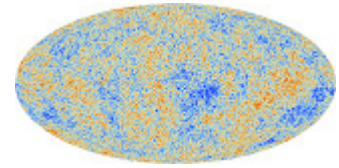
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## Programme 30 June, Friday



- 9.00 – 9.45 **Prof. Andrew Jaffe**, Imperial College London, UK  
Random Fields in Bayesian hierarchical models for cosmology
- 9.45 – 10.30 **Dr Jason McEwen**, University College London, UK  
Wavelet localisation of isotropic random fields on spherical manifolds and cosmological implications
- 10.30 – 11.00 *Coffee break* in Room M/1.02
- 11.00 – 11.45 **Prof. Tom Kitching**, Mullard Space Sciences Laboratory  
Spin power spectra on the ball
- 11.45 – 12.30 **Prof. María D. Ruiz-Medina**, University of Granada, Spain  
Increasing and fixed domain asymptotics for functionals of spherical random fields
- 12.30 – 13.30 *Lunch*, Room M/1.02
- 13.30 – 14.15 **Prof. Gyorgy Terdik**, University of Debrecen, Hungary  
Estimation the covariance function of isotropic fields on the sphere
- 14.15 – 15.00 **Prof. Vicent J. Martínez**, University of Valencia, Spain  
Joint constraints on galaxy bias and  $\sigma_8$  through the N-pdf of the galaxy number density
- 15.00 – 15.30 *Coffee break* in Room M/1.02
- 15.30 – 17.00 Discussion
- 17.00 Close

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