

Workshop on Computer Science and Statistics of the Contemporary CMB data analysis

**APC Laboratory
Bât. Condorcet
Campus Rive Gauche
2012
Sept, 19-21
Paris, France**

Big3 workshop talk schedule

Wednesday, September 19, 2012: Amphitheater Pierre-Gilles de Gennes, Paris Diderot

Time	Speaker	Title
8:30AM-9:00AM	<i>Registration</i>	
9:15AM-9:25AM	Scientific Organizing Committee	<i>Welcome address and organizational issues</i>
		Chair: Carlo Baccigalupi
9:25AM-10:05AM	George Smoot	<i>Cosmology and Cosmic Microwave Background</i>
10:05AM-10:45AM	Lloyd Knox	<i>Big overview</i>
10:45AM-11:15AM	<i>Coffee break</i>	
		Chair: Reijo Keskitalo
11:15AM-11:55AM	Ethan Anderes	<i>Shrinking the quadratic estimator</i>
11:55AM-12:15PM	Sigurd Næs	<i>Methodology and lessons from the QUIET Maximum Likelihood map-maker</i>
12:15PM-12:35PM	Stephen Feeney	<i>A robust constraint on cosmic textures from the cosmic microwave background</i>
12:35PM- 2:15PM	<i>Lunch break</i>	
		Chair: Carmelita Carbone
2:15PM- 2:55PM	Joanna Dunkley	<i>Sampling for Cosmic Microwave Background analysis</i>
2:55PM- 3:15PM	Anaïs Rassat	<i>Removal of two large scale Cosmic Microwave Background anomalies after subtraction of the Integrated Sachs Wolfe effect</i>
3:15PM- 3:55PM	Sivan Toledo	<i>Discrete Aspects of High-Performance Iterative</i>




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		<u>Linear Solvers</u>
3:55PM- 4:25PM	Coffee break	
		Chair: Paul Sutter
4:25PM- 5:05PM	Gersande Fort	<u>Adaptive and Interacting Monte Carlo methods for Bayesian analysis</u>
5:05PM- 5:25PM	Jason McEwen	<u>Spherical wavelet-Bayesian cosmic string tension estimation</u>
5:25PM- 5:45PM	Frédéric Guilloux	<u>Power spectrum estimation on the sphere using wavelets</u>
5:45PM- 6:05PM	Mathieu Remazeilles	<u>Reconstruction of high-resolution SZ maps from heterogeneous datasets using needlets</u>

Thursday, September 20, 2012: Amphitheater Pierre-Gilles de Gennes, Paris Diderot

Time	Speaker	Title
		Chair: Andrew Jaffe
9:15AM-10:10AM	David Hand	<u>Opportunities and Challenges in Modelling and Anomaly Detection</u>
10:10AM-10:35AM	Michael Hobson	<u>Nets and nests: accelerated Bayesian inference in astrophysics</u>
10:35AM-11:05AM	Coffee break	
		Chair: Paniez Paykari
11:05AM-11:45AM	George Bosilca	<u>Performance vs. Productivity a never-ending story</u>
11:45AM-12:05PM	Jaiseung Kim	<u>Restoration of a whole-sky CMB map</u>
12:05PM-12:45PM	Jerome Bobin	<u>Compressed sensing in astrophysics and beyond</u>



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12:45PM- 2:15PM	Lunch break	
		Chair: Jason McEwen
2:15PM- 2:55PM	Laura Grigori	<u>Recent advances in numerical linear algebra</u>
2:55PM- 3:15PM	Paul Sutter	<u>Accelerating convolutions on the sphere with hybrid GPU/CPU kernel splitting</u>
3:15PM- 3:55PM	Reijo Keskitalo	<u>Making maps for CMB experiments</u>
3:55PM- 4:25PM	Coffee break	
		Chair: Anaïs Rassat
4:25PM- 5:05PM	Jean-François Cardoso	<u>Component separation for the Planck mission</u>
5:05PM- 5:25PM	Eiichiro Komatsu	<u>Simple foreground cleaning algorithm for detecting primordial B-mode polarization of the cosmic microwave background</u>
5:25PM- 5:45PM	Soumen Basak	<u>Sparse component separation for accurate CMB map estimation</u>
5:45PM- 6:05PM	Florent Sureau	<u>Component Separation for Full-Sky Cosmic Microwave Background Recovery using Sparsity</u>

Friday, September 21, 2012: Amphitheater Pierre-Gilles de Gennes, Paris Diderot

Time	Speaker	Title
		Chair: Julian Borrill
9:15AM-10:10AM	Horst Simon	<u>Barriers to Exascale Computing</u>
10:10AM-10:35AM	Mikolaj Szydlarski	<u>Accelerating maximum likelihood Cosmic Microwave Background map-making</u>
10:35AM-11:05AM	Coffee break	



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		Chair:
11:05AM-11:45AM	Hiranya Peiris	<i>Hunting for relics from the early universe in the CMB</i>
11:45AM-12:05PM	Meisam Sharify	<i>Avoiding Communication in Generalized Least Square Problems.</i>
12:05PM-12:45PM	Domenico Marinucci	<i>On needlets/wavelets nonGaussianity estimators</i>
12:45PM- 2:15PM	<i>Lunch break</i>	
		Chair:
2:15PM- 2:55PM	Robert Adler	<i>From mean Euler characteristics to the Gaussian kinematic formula</i>
2:55PM- 3:15PM	Sandro Scodeller	<i>Detection of Point Sources Using Internal Templates and Needlets</i>
3:15PM- 3:55PM	Benjamin Wandelt	<i>Optimal methods for non-Gaussianity</i>
3:55PM- 4:25PM	<i>Coffee break</i>	
		Chair:
4:25PM- 5:05PM	Carmelita Carbone	<i>CMB lensing and N-body simulations</i>
5:05PM- 5:25PM	Dominic Galliano	<i>Deriving bounds for trispectrum estimators for Planck</i>
5:25PM- 5:45PM	Yabebal Fantaye	<i>CMB lensing reconstruction in the presence of diffuse polarized foregrounds</i>
5:45PM- 6:05PM	Alessandro Renzi	<i>Primordial non-Gaussianity and diffuse Galactic emissions</i>