

PLANCK 2011 CONFERENCE

THE MILLIMETER AND SUBMILLIMETER SKY IN THE PLANCK MISSION ERA



10-14 January 2011
Paris, Cité des Sciences

Monday, January 10th 2011

13:00 **Registration**

14:00 Claudie Haigneré (Présidente of Universcience)
Welcome

Planck mission status, Performances, Cross-calibration

Jan Tauber (ESA) - Jean-Loup Puget (IAS Orsay) - Reno Mandolesi (INAF/IASF Bologna)

Introduction

Session chair: François Pajot

14:20 François Bouchet (Institut d'Astrophysique de Paris) 30+5'
HFI data and performance (invited on Planck early paper)

14:55 Marco Bersanelli (University of Milano) 30+5'
LFI data and performance (invited on Planck early paper)

15:30 Ranga Chary (IPAC Caltech) 30+5'
Planck Early Release Compact Source Catalogue (invited on Planck early paper)

16:05 **Coffee break**

16:30 Goran Pilbratt (European Space Agency) 20+5'
The Herschel observatory (invited)

Radio sources

16:55 Bruce Partridge (Haverford College) 25+5'
Overview (invited)

17:25 Luigi Tofolatti (Universidad de Oviedo) 20+5'
Planck radio sources statistics (invited on Planck early paper)

17:50 Francisco Argueso (Universidad de Oviedo) 15+5'
A Bayesian technique to detect point sources in CMB maps

18:10 Anna Scaife (Dublin Institute for Advanced Studies) 15+5'
The 10C survey of Radio Sources - First Results

18:30 **End of day 1**

19:00 **Welcome reception at the Conference Center**

Tuesday, January 11th 2011

Radio sources (continued)

Session chair: Bruce Partridge

- 9:00 Anne Lahteenmaki (Aalto University Metsahovi Radio Observatory) 20+5'
Planck observations of extragalactic radio sources (invited on Planck early paper)
- 9:25 Marcella Massardi (INAF, Osservatorio Astronomico di Padova) 20+5'
Ground based Surveys for Planck (invited)
- 9:50 Helmut Wiesemeyer (Max Planck Institute for Radio Astronomy) 15+5'
The CMB Polarization Foreground of Radio-loud AGNs
- 10:10 Jorg Paul Rachen (Max Planck Institute for Astrophysics) 15+5'
High frequency blazar flares: The potential of Planck
- 10:30 **Coffee break**

Clusters of galaxies, Sunyaev-Zeldovich effect

Session chair: George Efstathiou

- 11:00 Richard Bond (CITA, University of Toronto) 25+5'
Overview (invited)
- 11:30 Nabila Aghanim (IAS Orsay) 20+5'
Planck SZ clusters (invited on Planck early paper)
- 11:55 Monique Arnaud (CEA Saclay) 20+5'
X rays properties of Planck SZ clusters (invited on Planck early paper)
- 12:20 **Buffet lunch**

Clusters of galaxies, Sunyaev-Zeldovich effect (continued)

Session chair: Jean-Michel Lamarre

- 14:00 Jim Bartlett (APC Paris) 20+5'
Optical properties of Planck SZ clusters (invited on Planck early paper)
- 14:25 Toby Marriage (Johns Hopkins University) 20+5'
ACT SZ observations (invited)
- 14:50 Christian Reichardt (University of California, Berkeley) 20+5'
SPT SZ observations (invited)
- 15:15 Natasha Hurley-Walker (University of Cambridge) 15+5'
Latest AMI SZ Results
- 15:35 Jean-Baptiste Melin (CEA Saclay) 15+5'
Statistical analysis of SZ scaling relations for X-ray galaxy clusters
- 15:55 **Coffee break**
- 16:30 Etienne Pointecouteau (IRAP Toulouse) 15+5'
Calibration of the local galaxy cluster SZ scaling relations from the Planck first sky survey
- 16:50 Jack Sayers (Caltech) 15+5'
Sunyaev-Zel'dovich imaging with Bolocam
- 17:10 Alex Wuensche (Instituto Nacional de Pesquisas Espaciais) 15+5'
Identification of galaxy clusters in the CMB maps

Interstellar medium components

- 17:30 Francois Boulanger (IAS Orsay) 25+5'
Overview (invited)

Poster oral presentation - Session 1

- 18:00 Posters P01 to P16 (1 slide - 2mn per poster) 30'
- 18:30 **End of day 2**

Wednesday, January 12th 2011

Interstellar medium components (continued)

Session chair: Rod Davies

- 9:00 Dough Marshall (IRAP Toulouse) 20+5'
Large scale (invited on Planck early paper)
- 9:25 Jens Chluba (CITA, University of Toronto) 15+5'
CosmoRec: A New Cosmological Recombination Code
- 9:45 Tess Jaffe (IRAP Toulouse) 15+5'
Studying the Galactic magnetic field in the plane

Poster oral presentation - Session 2

- 10:05 Posters P17 to end (1 slide - 2mn per poster) 25'
- 10:30 **Coffee break**
- 11:00 Ludovic Montier (IRAP Toulouse) 20+5'
Cold cores (invited on Planck early paper)
- 11:25 Philippe André (CEA Saclay) 20+5'
Herschel observations of prestellar cores (invited)
- 11:50 Mika Juvela (University of Helsinki) 15+5'
Galactic cold cores with the Planck and Herschel satellites
- 12:10 Gabor Marton (Eotvos Lorand University) 15+5'
Distribution of Planck Cold Cores - loops and clusters
- 12:30 **Buffet lunch**

IR galaxies, CIB

Session chair: Catherine Césarsky

- 14:00 David Elbaz (CEA Saclay) 25+5'
Overview (invited)
- 14:30 Guilaine Lagache (IAS Orsay) 20+5'
Planck CIB (invited on Planck early paper)
- 14:55 Dave Clements (Imperial College London) 20+5'
Nearby galaxies (invited on Planck early paper)
- 15:20 Steve Eales (Cardiff University) 20+5'
SPIRE extragalactic surveys (invited)
- 15:45 Joaquin Vieira (California Institute of Technology) 20+5'
SPT extragalactic surveys (invited)
- 16:10 **Coffee break**
- 16:40 Gianfranco De Zotti (INAF, Osservatorio Astronomico di Padova) 20+5'
Infrared and submm galaxies models (invited)
- 17:05 Olivier Doré (Jet Propulsion Laboratory) 15+5'
CIB anisotropies modeling
- 17:25 Frank Israel (Sterrewacht Leiden) 15+5'
Anomalous Dust in Late-Type Galaxies
- 17:45 Ruediger Kneissl (ALMA/ESO) 15+5'
ALMA
- 18:05 Marco Viero (California Institute of Technology) 15+5'
Correlations in the (sub)millimeter background from ACT x BLAST
- 18:25 **End of day 3**
- 18:40 **Special projection of the Planck movie at the Planetarium of the Cité des Sciences**

Thursday, January 13th 2011

Dust emission in different phases of the ISM

Session chair: François Bouchet

- 9:00 Peter Martin (CITA Toronto) 25+5'
Overview (invited)
- 9:30 Jean-Philippe Bernard (IRAP Toulouse) 20+5'
Dust emission (invited on Planck early paper)
- 9:55 Clive Dickinson (Jodrell Bank Centre for Astrophysics) 20+5'
Anomalous emission (invited on Planck early paper)
- 10:20 Edith Falgarone (LERMA, Observatoire de Paris) 20+5'
Line emission in the diffuse ISM (invited)
- 10:45 **Coffee break**
- Session chair: Gianfranco De Zotti
- 11:15 Marc-Antoine Miville-Deschenes (CITA / IAS) 20+5'
Dust in the diffuse interstellar medium and components separation issues (invited on Planck early paper)
- 11:40 Alain Abergel (IAS Orsay) 20+5'
Interstellar dust observations from Planck and Herschel (invited)
- 12:05 Frederick Poidevin (IAG-USP) 15+5'
Magnetic field components analysis of the SCUPOL 353GHz polarization data catalog
- 12:25 Andy Strong (Max Planck Institut fuer extraterrestrische Physik) 15+5'
The Fermi view of the high-energy interstellar medium and its relevance to Planck (talk given by Isabelle Grenier)
- 12:45 **Buffet lunch**

Cosmological requirements and methods for components separation

Session chair: Charles Lawrence

- 14:15 George Efstathiou (University of Cambridge) 30+5'
Overview (invited)
- 14:50 Jacques Delabrouille (APC Paris) 20+5'
Component separation developments in Planck (invited)
- 15:15 Mark Ashdown (Kavli Institute for Cosmology, Cambridge) 20+5'
Component separation developments in Planck (invited)
- 15:40 Carlo Baccigaluppi (SISSA-ISAS, Trieste) 20+5'
Component separation developments in Planck (invited)
- 16:05 **Coffee break**
- Session chair: Joanna Dunkley
- 16:30 Vincent Guillet (IAS Orsay) 20+5'
Modelling the impact of dust evolution on the dust polarised emission
- 16:55 Antonio Mario Magalhaes (IAG, Universidade de Sao Paulo) 20+5'
Polar visible/near IR (invited)
- 17:20 Michael Jones (University of Oxford) 15+5'
The C-Band All-Sky Survey
- 17:40 Ercan Kuruoglu (ISTI-CNR) 15+5'
Adaptive Langevin Sampler for Bayesian Separation of Cosmological Components
- 18:00 Hans Ulrik Norgaard-Nielsen (DTU Space) 15+5'
Removal of foregrounds from the WMAP 7yr polarization maps using a MLP neural network
- 18:20 **End of day 4**
- 20:00 **Conference dinner at Le Musee des Arts Forains**

Friday, January 14th 2011

Polarized Components separation methodology and results

Session chair: Jean-Loup Puget

- 9:00 Joanna Dunkley (University of Oxford) 20+5'
WMAP (invited)
- 9:25 Kris Gorski (Jet Propulsion Laboratory, Caltech) 20+5'
Component separation developments in Planck (invited)
- 9:50 Akito Kusaka (KICP, University of Chicago) 20+5'
QUIET (invited)
- 10:15 Jean-Luc Starck (CEA SAp Saclay) 15+5'
PLANCK Component Separation using a Sparsity Prior
- 10:35 **Coffee break**
- Session chair: Jan Tauber
- 11:00 Mathieu Remazeilles (APC Paris) 15+5'
CMB, SZ effect, and ISM foregrounds separation with extended ILC approaches
- 11:20 Jose Alberto Rubino-Martin (Instituto Astrofisica Canarias) 15+5'
The QUIJOTE-CMB Experiment

Summary talk

- 11:45 Richard Bond (CITA, University of Toronto) 30'
- 12:15 **Buffet lunch**
- 14:00 **End of conference**

Posters

- P01 Marco Tucci, LAL Orsay
High-frequency predictions for number counts and spectral properties of extragalactic radio sources
- P02 Matthieu Bethermin, IAS Orsay
Modeling the evolution of infrared galaxies: A Parametric backwards evolution model
- P03 Elisabete De Gouveia Dal Pino, IAG-USP
SN turbulence and the formation of high latitude structures in the halo of the Galaxy
- P04 Dobashi Kazuhito, Tokyo Gakugei University
Atlas and Catalog of Dark Clouds Based on the 2 Micron All Sky Survey
- P05 Yasuo Fukui, Department of Physics, Nagoya University
Super CO survey with NANTEN2: A key to understand the foreground emission in the Planck results
- P06 Vibor Jelic, ASTRON
Galactic foreground simulations and observations at low radio frequencies
- P07 Melanie Koehler, Institute d'Astrophysique Spatiale
Aggregate dust connections and implications for astronomical observations at sub-mm wavelengths
- P08 Niels Oppermann, Max Planck Institute for Astrophysics
Extracting information on magnetic power and helicity from galactic polarization maps at CMB frequencies
- P09 Deborah Paradis, CESR
Variations of grain emissivity from far-infrared to millimeter wavelengths
- P10 (Cancelled)
- P11 (Cancelled)
- P12 Douglas Scott, University of British Columbia
BLAST-Pol
- P13 Marta Alves, Jodrell Bank Centre for Astrophysics
Radio Recombination Line Surveys
- P14 Yasuo Doi, Univ. of Tokyo
AKARI far-infrared all sky survey
- P15 Mika Juvela, University of Helsinki
Herschel study of the extended dust emission in the cold clouds located by Planck
- P16 Carlos Hugo Lopez-Caraballo, Instituto Astrofisica Canarias
Constraints on the Polarization of the Anomalous Microwave Emission in the Perseus Molecular Complex from 7-year WMAP data
- P17 Isabelle Ristorcelli, IRAP, Universite de Toulouse - CNRS
Planck Early results: The mm/submm properties of a sample of Galactic cold clumps
- P18 Tomomi Shimoikura, Tokyo Gakugei University
Release of the Atlas and Catalog of Dark Clouds Based on 2 MASS
- P19 Luis Fernando Lanz, Instituto de Fisica de Cantabria (CSIC-UC)
Detection of extragalactic point sources in 7 year WMAP data by using a multifrequency method.

- P20 Luis Gonzalez-Mestres, LAPP-IN2P3 Annecy
WMAP data and unconventional cosmologies
- P21 Nobuhiko Katayama, High Energy Accelerator Research Organization (KEK)
Simple map cleaning algorithm for B-mode detection at low multipoles
- P22 Maude Le Jeune, APC Paris
Total foreground maps from Planck by Wiener filtering in the needlet domain
- P23 Melis Irfan, JBCA, University of Manchester
CBass: The C-Band All Sky Survey
- P24 Soumen Basak, Laboratoire AstroParticule et Cosmologie (APC)
Component separation for a future CMB polarization space mission
- P25 Graeme Addison, University of Oxford
Linear bias model for ACT x BLAST clustered IR source power
- P26 Alex Amblard, NASA Ames Research Center
Tracing the Sources of the Cosmic Far-Infrared Background with Unresolved Fluctuations