

Deciphering the Cosmic Infrared Background

October 8-12th 2012, Banyuls-sur-Mer

Part I – Lectures (Monday 8th to Wednesday 10th)

Monday, October 8th:

- 9h-10h: *"The history of a discovery"*, Jean-Loup Puget (IAS, France)
- 10h-11h: *"Galaxy evolution from an IR perspective – I"*, Emeric Le Floch (CEA, France)

11h-11h30: *Coffee break*

- 11h30-12h30: *"Characterizing the interstellar medium of galaxies - I"*,
Daniel Dale, University of Wyoming, USA

12h30-14h: *Lunch / discussions*

- 14h-15h: *"Modeling I – Cosmological simulations"*, Romain Teyssier
(CEA/Zurich, France/Switzerland)
- 15h-16h: *"Resolving the CIB - I: methods to identify the sources responsible for the CIB"*, Matthieu Béthermin, (CEA, France)

16h-16h30: *Coffee break*

- 16h30-17h30: *"The power spectrum of the Cosmic Infrared Background"*, Gil Holder
(McGill University, USA)
- 17h30-18h30: *"Current state of the art in CIB modeling: a critical review"*,
Paolo Serra (IAS, France)

- 19h - ... : *Dinner*

Tuesday, October 9th:

- 9h-10h: *"Galaxy evolution from an IR perspective – II"*, Emeric Le Floch (CEA, France)
- 10h-11h: *"Structure Formation"*, Risa Wechsler (Stanford, USA)

11h-11h30: Coffee break

- 11h30-12h30: *"Modeling II – Physics of galaxy formation"*, Romain Teyssier (CEA/Zurich, France/Switzerland)

12h30-14h: Lunch / discussions

- 14h-15h: *"Characterizing the interstellar medium of galaxies - II"*, Daniel Dale, University of Wyoming, USA
- 15h-16h: *"The CIB from a CMB point of view"*, Gil Holder (McGill University, USA)

16h-16h30: Coffee break

- 16h30-17h30: *"Resolving the CIB – II: statistical properties of the sources responsible for the CIB from an observational and modeling point of view"*, Matthieu Béthermin, (CEA, France)

17h30-19h: Open discussions

- 19h - ... : Dinner

Wednesday, October 10th:

- 9h-10h: *"Galaxy Formation within Large Scale Structures"*, Risa Wechsler (Stanford, USA)
- 10h-11h: *"Cross-correlating the CIB with other mass or light tracers"*, Olivier Doré (JPL, USA)

11h-11h30: Coffee break

- 11h30-12h30: *"Future prospects for submm/far-IR imaging and spectroscopic instrumentations"*, Jonas Zmuidzinas, (Caltech, USA)

12h30-14h: Lunch / discussions

- 14h-19h: *Tour & Excursion*
- 19h - ... : *Dinner*

Part II – Workshop (Thursday 11th, Friday 12th)

Thursday, October 11th:

- 9h-10h: *“ALMA unveils high redshift cosmic microscopes discovered by the South Pole Telescope”*, Joaquin Vieira (Caltech, USA)
- 10h-10h30: *“The Planck view of high redshift dusty star forming galaxies detected by the South Pole Telescope”*, Niraj Welikala (IAS, France)

10h30-11h: Coffee break

- 11h00-11h30: *“Submillimeter galaxies: Insights from the COSMOS survey”*, Vernesa Smolcic (ESO - Alfa, Germany)
- 11h30-12h: *“Sources and structures of the CIB: IR to mm observations and cosmological implications”*, Hervé Dole (IAS, France)

12h-14h: Lunch / discussions

- 14h-14h30: *“Detection of high-z proto-clusters and lensed objects with Planck-HFI”*, Ludovic Montier (IRAP, France)
- 14h30-15h: *“CO line mapping: current status”*, Olivier Doré (JPL, USA)
- 15h-15h30: *“SCUBA-2: performance and status of the Cosmology Legacy Survey”*, Edward Chapin (European Space Astronomy Center, Spain)

15h30-16h: Coffee break

- 16h-16h30: *“IR-galaxies and main sequence in a semi-analytical model”*, Morgane Cousin (IAS, France)
- 16h30-17h: *“The nature of dusty galaxies in the LCDM cosmology”*, Carlton Baugh

(Durham University, UK)

- 17h-18h30: *Joined discussion / debate: The fate of IR galaxy studies in the context of future IR experiments*

Friday, October 12th:

- 9h-9h30: *"The Cosmic Infrared Background in ACT"*, Amir Hajian
(University of Toronto, Canada)
- 9h30-10h: *"Probing Unresolved CIB Anisotropies with Stacking and Power Spectra"*,
Marco Viero (Caltech, USA)
- 10h-10h30: *"Modeling source counts and CIB fluctuations based on our knowledge
on Main Sequence and starburst galaxies"*,
Matthieu Béthermin (CEA, France)

10h30-11h: Coffee break

- 11h-11h30: *"High order moments of the CIB anisotropies"*, Fabien Lacasa
(IAS, France)
- 11h30-12h: *"Modeling the bi-spectrum of the CIB anisotropies"*, Aurélie Pénin
(LAM, France)
- 12h-12h30: *"Multi-band P(D) and model fitting"*, Gaelen Marsden (University of
British Columbia, Canada)

_____ *End of the meeting* _____

(16h30: Bus departure to Perpignan)