

Euclid-France Workshop on Clusters

mardi 23 janvier 2024 - mercredi 24 janvier 2024

IP2I Lyon

Programme Scientifique

Tuesday January 23rd

Morning

09:30-10:00 Welcome and Introduction

Session 1: Galaxy clusters: a multi-wavelength view

Chairperson: Sunayana Barghava

10:00 – 10:15 Cluster science with eROSITA: Florian Pacaud

10:15 -- 10:30 CHEXMATE, an overview: Gabriel Pratt

10:30 – 10:45 Cosmology with Chandra-Planck clusters: Gaspard Aymerich

10:45 – 11:00 X-ray galaxy clusters and groups revealed by the X-CLASS survey: Nicolas Clerc

11:00 -- 11:20: *Coffee Break*

Chairperson: Florian Ruppin

11:20 -- 11:35 The NIKA2 Clusters Large Program: Florian Ruppin

11:35 – 11:50 The future of SZ surveys: Jim Bartlett

11:50 – 12:30 Discussion: the mass-observable relation and mass calibration

12:30-14:00: Lunch at IP2I

Afternoon

Session 2: Euclid Clusters Legacy

Chairperson: Clotilde Laigle

14:00 – 14:15 Impact of clusters' connectivity on their evolution and matter distribution: Céline Guin

14:15 – 14:30 Low surface brightness astronomy and intracluster light in the Euclid era: Amael

Ellien

14:30 – 14:45: Distant clusters, protoclusters: Simona Mei

Session 3: Cluster cosmology through next generation optical/NIR clusters surveys

Chairperson: Lucie Beaumont

14:45 – 15:00 Cluster cosmology with Euclid: Laura Salvati

15:00 – 15:15 Euclid preparation. Sensitivity of cluster counts to neutrino parameters: Ziad Sakr

15:15 – 15:30 A non-parametric approach to the relation between the halo mass function and internal dark matter structure of haloes: Pier Stefano Corasaniti

15:30 - 15:45 Probing the Universe with galaxy clusters: The special case of "exotic" lensing: Quentin Basto

15:45 – 16:00 CLOE tutorial: Amandine Le Brun

16:00 – 16:30 *Coffee Break*

Chaiperson: Amandine Le Brun

16:30 -- 16:45 Cluster science with LSST: Marina Ricci

16:45 -- 17:00 Euclid Cluster SWG organisation : Jim Bartlett

17:00 -- 17:15 Towards Euclid Selection function: Calum Murray

17:15 -- 17:30 Hydrodynamical simulations and cluster injection for Euclid: Juan Macias Perez

17:30 – 18:00 Discussion: Systematics, selection function, halo mass function,...

18:00: End of the session

Wednesday January 24th

Session 4: Euclid Clusters SGS activities

Chairperson: Calum Murray

09:00 -- 09:15: Euclid OU-LE3 activities: Sophie Maurogordato (Key projects, PFs...)

09:15 -- 09:30: The cluster LE3 pipeline: Martin Vannier/Christophe Benoist (TBC)

09:30 -- 9:45: Performance assessment of cluster detection and richness methods for Euclid: Sunayana Bahargava

9:45 -- 10:00: Weak Lensing Cluster Masses with Euclid: Lucie Beaumont

10:00 -- 10:15 Galaxy Cluster detection with Weak Lensing: Towards a Euclid weak lensing selected galaxy cluster catalogue: Gavin Leroy

10:15 – 10:45 *Discussion Early data analysis*

10:45 -- 11:15 *Coffee Break*

Chaiperson: Amaël Ellien

Session 5: EROs

11:15 -- 11:30 Lensing ERO clusters: Raphaël Gavazzi

Session 6: Multi-wavelength synergies

11:30 – 11:45 Validation of the Euclid cluster catalogue with external data: Jean-Baptiste Melin

11:45 – 12:00 Le programme XMM Heritage sur EDRS (2024-2027) : Marguerite Pierre

12:00 – 12:30 Discussion: Which follow-up for Euclid clusters?

12:30 – 12:40 *Wrap-up*

12:40: **End of the meeting**