



X-RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

8-13 September 2019
CNR/INAF Research Area, Bologna, Italy

Contribution ID: 57

Type: **Poster**

X-rays, SZ and Optical joint analysis of the hot and diffuse baryons within the Planck-detected triple-cluster systems

Friday, 13 September 2019 16:36 (2 minutes)

Recent stacking analysis of Sunyaev-Zel'dovich (SZ) observations of hundreds of superclusters have revealed the presence of the warm-hot intergalactic medium (WHIM) as a component of the intercluster gas. This indicates that superclusters are good targets to directly study the WHIM.

We are conducting a detailed study of two triple-cluster systems detected by Planck. We will jointly analyse the SZ data from Planck together with X-rays and galaxy distribution observations with *XMM-Newton* and *VTL/FORS2* respectively. We will present the supercluster components including a possible direct detection of WHIM. We will discuss their physical properties (e.g. temperature, density, pressure, entropy) and their impact on the missing baryon problem.

Topic

Hot and diffuse baryons

Affiliation

IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France

Primary author: Mr LECOQ, Edouard (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France)

Co-authors: Dr KOLODZIG, Alexander (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France); Dr AGHANIM, Nabila (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France); Prof. LANGER, Mathieu (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France); Dr DOUSPIS, Marian (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France); Mr BONJEAN, Victor (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France); Dr POINTECOUTEAU, Etienne (IRAP, Université de Toulouse, CNRS, CNES, UPS, Toulouse, France*)

Presenter: Mr LECOQ, Edouard (IAS, CNRS/Université Paris-Sud, Université Paris-Saclay, Orsay CEDEX, France)

Session Classification: POSTER SESSION