Our Team

Robin Kooistra

Research Field: Astronomy

Postdoc

The intergalactic medium (IGM) in large-scale filaments plays an important role in the formation and evolution of galaxies. My interest lies in studying the properties of the IGM gas and how it affects the galaxies within the filaments, as well as the connection of the large-scale structure to the underlying cosmology. Through simulations I make predictions for observations of the IGM targeting emission lines of neutral hydrogen in emission (i.e., 21 cm in the radio) or in absorption through Lyman-alpha forest tomography.

Chiara La Licata

Research Field: Experimental Physics

Postdoc

My primary interest focuses on experimental high energy physics, in particular on using indirect probes for discovering or constraining the existence of particles beyond the Standard Model. I am currently a member of the Belle II experiment, and in the last three years, I have been deeply involved in the development of the radiation monitoring system to protect the silicon vertex detector. The first run of Belle II is about to start. I will follow the commissioning of the monitoring system and prepare to look at the first data.

Hyunbae Park

Research Field: Astrophysics and Cosmology

Postdoc

I work on modeling of the Temperature Anisotropy in the Cosmic Microwave Background induced by the kinetic Sunyaev-Zel'dovich (kSZ) effect. The kSZ signal has information about spatial distribution of ionized IGM (intergalactic medium) in the space. It tells us about how ionization spread from galaxies during the epoch of reionization and how the gas density field evolved after the reionization.

Samantha Stever

Research Field: Astronomy

Postdoc

During my PhD at IAS in Paris, I studied the effect of cosmic rays, which create a parasitic signal on the sensitive detectors used for modern space missions. I measured a semiconducting bolometer to determine the nature of the detector's thermal and electrical response to radiation. As a postdoc at Kavli IPMU, I am expanding my study of this problem to LiteBIRD using experimental and modelling techniques. I will also examine other systematic effects arising from the polarization modulator (half wave plate), its coupling with the detectors, and the effect this has on the B-mode signal.