中華民國天文學會
The Astronomical Society of the Republic of China (Taiwan)

Contribution ID: **137** Type: **Either**

Observable-to-mass-and-redshift relations of galaxy clusters in RASS-MCMF and ACT-DR5 MCMF with weak lensing shear measurements from HSC

We present weak lensing shear measurements of two ICM-selected galaxy cluster samples. The cluster samples, RASS-MCMF and ACT-DR5 MCMF, are selected by applying the Multi-Component Matched Filter (MCMF) algorithm to the second ROSAT All-Sky-Survey (RASS) source catalog (2RXS) and the ACT-DR5 dataset, respectively. For the RASS-MCMF catalog, 171 out of 8449 clusters within the redshift range $0.1 \leq z < 0.75$ are covered by the Hyper Suprime-Cam (HSC) survey, enabling weak lensing shear measurements. In the ACT-DR5 MCMF catalog, 273 out of 6237 clusters within $0.1 \leq z < 1.7$ are covered in the same HSC field. Using the measured shear profiles of these clusters, we further model the observable-to-mass-and-redshift relations.

Section

Cosmology

Primary author: LI, I-HSUAN (National Cheng Kung University)

Co-author: CHIU, I-Non (National Cheng Kung University)

Presenter: LI, I-HSUAN (National Cheng Kung University)

Session Classification: Poster-EA