

Contributed Talk

Splinter eROSITA

THE MULTI-COMPONENT MATCHED FILTER CLUSTER CONFIRMATION  
TOOL (MCMF)

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Surveys identifying galaxy clusters via measurements of properties of the intra cluster medium, either via X-ray or the Sunyaev-Zel'dovich effect (SZE) have shown to be successful to constrain cosmological parameters. Up to now those results were based on only a few hundred of clusters. This will change soon with upcoming surveys such as eROSITA , that will detect up to hundred thousand clusters. This brings up one downside of those surveys, the lack of redshift information for the majority of the identified clusters.

The multi-component matched filter cluster confirmation tool (MCMF) was therefore developed to provide these information for large numbers of clusters. The tool currently uses photometric data from the Dark Energy Survey (DES) to obtain cluster redshifts up to  $z \simeq 1$  with high precision. Further it allows additional cluster confirmation and cleaning of contaminated cluster samples by estimating the probability of a source of being a chance superposition with a given optical counter part.

Results of MCMF to follow up the ROSAT based 2RXS catalogue and the SZE based catalogue from the South Pole Telescope (SPT) will be shown during this presentation.