Searching in GaBoDS deep survey for clusters of galaxies by weak gravitational lensing

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Abstract
The aim of the present work is detection of galaxy clusters based on weak gravitational lensing method. We apply mass aperture statistics method to 0.32 square degrees data obtained with the WFI@MPG/ESO 2.2 m telescope and detect mass peaks based on their mass not the luminosity. So by the application of proper filter function, shear profile and mass map are produced. Finally mass peaks with higher detection significance are extracted. In future works, redshift of these mass concentrations and so their mass can be obtained.

Keywords: weak gravitational lensing, galaxies, galaxy clusters

For full article, refer to the Persian section.

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