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## The Dark Energy Survey - First Results in Galaxy Cluster Weak Lensing

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We present the first set of galaxy cluster weak lensing results from the Dark Energy Survey (DES) Science Verification data. The Science Verification (SV) run, approximately 160 square degrees of multi-epoch imaging in four frequency bands, contains data for thousands of clusters, many of which have been newly discovered by DES. The DES-SV area also contains regions that overlap with footprints of other cluster-finding surveys, such as the South Pole Telescope (SPT) Cluster Survey and the X-ray Multi-Mirror Mission (XMM) Cluster Survey (XCS). We use DES optical data to perform weak lensing analysis on several sets of clusters, some found entirely by DES, and others found by the overlapping cluster surveys. Some of these samples allow us to measure the relationships between weak lensing mass and other cluster observables, such as X-ray temperature. By also performing mass calibration measurements on previously-known clusters, we examine systematic effects in the DES-SV data and verify that the survey data quality is adequate for expected science analysis in future years.

### Oral or Poster Presentation

Oral

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