## ML-IAP/CCA-2023



Contribution ID: 114 Type: Flash talk

## Optimizing Galaxy Sample Selections for Weak Lensing Cluster Cosmology

Friday, December 1, 2023 3:30 PM (3 minutes)

Weak Lensing Galaxy Cluster Masses are an important observable to test the cosmological standard model and modified gravity models. However cluster cosmology in optical surveys is challenged by sources of systematics like photometric redshift error. We use combinatorial optimization schemes and fast Machine Learning assisted model evaluation to select galaxy source samples that minimize the expected systematic error budget while maintaining sufficient signal-to-noise in the measurement to meet the stringent science requirements of surveys like LSST.

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