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Towards precision cosmology -- systematics removal with Stage III data

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Precision cosmology is a very important target for the coming Stage IV weak lensing studies. It is also hard to achieve due to multiple systematical errors. In this talk, we present systematics mitigation performed in 2 published papers and some ongoing works. More specifically, we present intrinsic alignment mitigation with KiDS data, and shear bias removal as well as redshift error measurements with DECaLS data and Obiwan image simulation. With the experience of the calibrations with current Stage III data, we forecast the requirements for CSST systematics control, which will guide our calibration process in the future.

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