## **EPS-HEP2023** conference



Contribution ID: 771

Type: Parallel session talk

## Cosmology with weak gravitational lensing according to KiDS

Wednesday 23 August 2023 16:30 (20 minutes)

Weak gravitational lensing - small distortions of photon paths due to the large-scale structure of the Universe - is an emerging cosmological probe, also known as "cosmic shear". I will present recent results of today's main cosmic shear surveys, with a focus on the Kilo-Degree Survey (KiDS) in which I take part. I will in particular discuss the current status of the so-called " $S_8$  tension". I will also mention some other applications of weak lensing in KiDS, which include smaller-scale investigations of galaxies and their dark matter haloes. Using KiDS as an example, I will point to some challenges that current and forthcoming weak lensing surveys are facing.

## **Collaboration / Activity**

Kilo-Degree Survey

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