

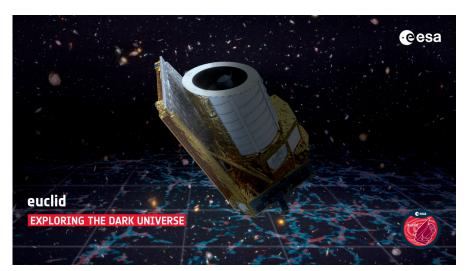
## **Institute for Astro- and Particle Physics Extragalactic Astrophysics**

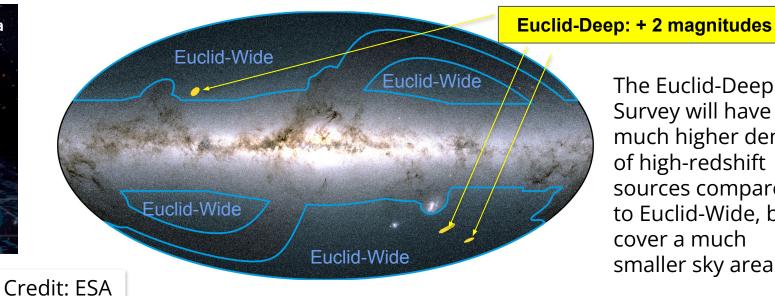
## Topic 3: Prospects for weak lensing in *Euclid's* Deep Survey

The Euclid Deep Survey and the Euclid Wide Survey

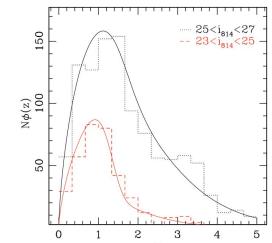
Euclid Wide Survey region of interest: 17,354 deg

Euclid Deep Fields (left to right): North=20 deg<sup>2</sup>, South=23 deg<sup>2</sup>, Fornax=10 deg<sup>2</sup>





The Euclid-Deep Survey will have a much higher density of high-redshift sources compared to Euclid-Wide, but cover a much smaller sky area



Galaxy redshift distribution in two magnitude bins in Hubble deep field data (Schrabback et al. 2010)

## Questions to answer in this Bachelor thesis project:

- Can Euclid-Deep improve weak lensing measurements of the masses of high-redshift galaxies & galaxy groups?
- How robustly can we select high-redshift background galaxies in Euclid-Deep and Euclid-Wide data?