

## UNIONS: 3500 deg<sup>2</sup> of weak lensing in the Northern Sky

The Ultraviolet Near-Infrared Optical Northern Survey (UNIONS) is a survey in the Northern sky which will cover 5,000 deg<sup>2</sup> in u, g, r, i, and z. Observations are obtained from the three Hawai'ian telescopes CFHT, HSC, and Pan-STARRS. Their location on Mauna Kea allows for an excellent seeing ( $\approx 0.65$  arcsec in the r-band), making UNIONS ideal for weak gravitational lensing. We present a weak-lensing shape catalog covering 3,500 deg<sup>2</sup>, which has been processed with the ShapePipe pipeline. We show that systematics are well under control, in particular with respect to the PSF. We show first results on the connection between galaxies and dark matter, including measurements of the Black-Hole to Halo-Mass relation and direct constraints on Intrinsic Alignment. These findings take advantage of the large overlap between imaging data from UNIONS and spectroscopic measurements from BOSS.