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Forward modelling UNIONS survey for Implicit Likelihood Inference

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The Ultraviolet Near-Infrared Optical Northern Survey (UNIONS) is a photometric survey in the North. Its images can be used to study the Large-Scale structure of the Universe with cosmic shear. The standard approach relies on two-point statistics that only capture the Gaussian information in the shear field. Statistics can be build to extract its non-Gaussian information but usually relie on numerical simulations. Bridging the gap between model and data requires a realistic forward modelling of the UNIONS survey. It includes accounting for astrophysical systematics but also survey specific properties. In this talk, I will present the ongoing effort to build a realistic forward model for UNIONS survey and its use for Implicit Likelihood Inference.

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