Contribution ID: **14** Type: **Regular talk**

Cosmological Simulation-Based Inference with Truncated Marginal Neural Ratio Estimation

Wednesday, 11 May 2022 16:30 (25 minutes)

I will describe some applications of Truncated Marginal Neural Ratio Estimation (TMNRE) to cosmological simulation-based inference. In particular, I will report on using SBI for CMB power spectra (based on https://arxiv.org/abs/2111.08030) and realistic 21cm simulations (work in progress). Along the way, I plan to discuss some thoughts on how to incorporate active learning scenarios with high-dimensional nuisance parameter spaces, as well as criteria we need to trust results generated via simulation-based inference.

Primary author: COLE, Alex

Co-authors: MILLER, Benjamin; WENIGER, Christoph (University of Amsterdam)

Presenter: COLE, Alex

Session Classification: Workshop