ID de Contribution: **64**                                              Type: **Non spécifié**

# Machine learning in cosmology: Using emulators to accelerate inference for Stage-IV surveys

*vendredi 13 juin 2025 11:50 (20 minutes)*

In my talk, I will talk about the development of a large emulator library, designed to streamline the exploration and inference of different cosmological models being used in the Stage-IV survey analysis. This library serves as a bridge between different theoretical predictions and observational data, offering fast, accurate interpolations of key cosmological quantities. Built upon a suite of precomputed datasets, spanning diverse parameter spaces and models, the emulator enables efficient likelihood evaluations and parameter inference for large-scale surveys. We will discuss the methodology behind constructing the emulators, including the choice of cosmological models, sampling strategies, and validation techniques.

**Orateur:**   SLADOLJEV, Ivan (Royal Holloway)

**Classification de Session:**   COLOURS Workshop