



ID de Contribution: 41

Type: Non spécifié

FINK: enabling supernova cosmology in the era of LSST

mercredi 20 novembre 2019 12:40 (20 minutes)

Next generation experiments will provide an unprecedented volume of data to constrain the nature of Dark Energy. LSST is expected to detect 10,000 transient candidates every 30 seconds, within these alerts LSST will discover supernovae that can be used in cosmology analyses. To fully harness the power of LSST, it is imperative to develop innovative methods able to deal with large data volumes as well as optimize the use of scarce spectroscopic resources. In this talk I will present Fink, an IN2P3 broker initiative being developed to face these challenges focusing on the data avalanche expected by the biggest survey of this upcoming decade, LSST. Fink has the potential to positively impact cosmology by (i) selecting large samples of SNe Ia without spectroscopy for population, systematic and Dark Energy studies and (ii) enabling efficient and traceable use of spectroscopic follow-up. Fink is designed to use state-of-the-art machine learning methods that allow, not only accurate classification, but also the construction of optimal training samples to improve these classifications.

Auteurs principaux: MOLLER, Anais (CNRS / LPC Clermont); Dr ISHIDA, Emille (LPC-UCA); PELOTON, Julien (CNRS-LAL)

Orateur: MOLLER, Anais (CNRS / LPC Clermont)