

# Machine learning meets astrophysics

December 15, 2022

Institut d'Astrophysique de Paris

As part of a CNRS Artificial Intelligence and Science for Artificial Intelligence (AISSAI) event, we are pleased to invite you to a morning of presentations followed by an afternoon of interactions at the Institut d'Astrophysique de Paris on the intersection between Machine Learning and Astrophysics, on December 15th.

No registration is necessary.

The day will start with presentations from invited speakers, touching on various aspects of the interface between ML and Astrophysics. For interested participants, the afternoon will be dedicated to free interaction and collaboration time with invited speakers.

Schedule:

9:30 am

- Laurence Perreault-Levasseur (U. Montreal): Strong Lensing and ML
- Simon White (Max Planck Institute for Astrophysics): Prompt cusps and their consequences for the dark matter annihilation signal
- Niall Jeffrey (UCL): Challenges of implicit likelihood-free inference for cosmology

10:45 coffee break

11:15 am

- Justin Alsing (Stockholm): Hierarchical Inference of Galaxy Populations with Machine Learning Methodologies
- Ethan Anderes (UC Davis): Analysis on the Sphere
- Ingo Waldman (UCL): The Ariel Data Challenge for Exploring Exoplanets with Machine Learning
- Marc Huertas-Company & Francois Lanusse (LERMA-IAC/CNRS): The impact of Deep Learning for Galaxy Surveys
- Brice Ménard (Johns Hopkins University) & Ben Wandelt (IAP, Sorbonne University; CCA): What is the future of Machine Learning in Astronomy?

Lunch break

2pm Open discussion/collaboration on astro ML at IAP