# Welcome!



# Organizing committee

#### Local organizing committee

Samuel Calvet (LPCA)

Alexandre Claude (LPCA)

Julien Donini (LPCA)

Cyril Galpier (LPCA)

Marine Hebert (LPCA)

Emille Ishida (LPCA)

Maria Pruzhinskaya (LPCA)

#### Scientific organizing committee

Emille Ishida (LPCA, chair)

Vincent Barra (LIMOS)

Anja Butter (LPNHE)

Julien Donini (LPCA)

Tommaso Dorigo (INFN)

Adnan Ghribi (GANIL)

Francois Lanusse (CEA)

Carole Lartizien (CREATIS)

Louis Lyons (Oxford)

Paula Sanchez (ESO)

Pietro Vischia (UniOvi and ICTEA)

# **Sponsors**













#### https://aissai.cnrs.fr/aissai/

#### Al center launched by CNRS in 2021

Foster dialogue between scientific disciplines in interaction with Al.

Establish radically **new modes of collaboration** between scientific fields far beyond the mere assimilation of Al methods.

Address **domain-specific strategic** questions such as explainability, expert knowledge, robustness, ethics, frugality, etc.

Address **new scientific questions** and **accelerate scientific discovery** in sciences (physics, chemistry, materials, biology, humanities, etc).

Build ties with other similar centers abroad.



#### Scientific events

Thematic semesters on multidisciplinary subjects

Incubator for projects: **fellowships**, **visiting researchers**, **project funding**, Al engineers in multidisciplinary projects;

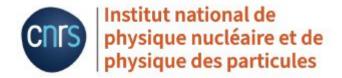
**Training sessions** related to AI for researchers from different communities

Workshops, webinars, or hackathons;

Host multidisciplinary teams;

Outreach: All and society.

## **AISSAI IN2P3 Semester**



Series of events planned from June 2023 to the present day

- Initiated by David Rousseau (IJCLab) and Alexandre Boucaud (APC)
- With support from Jalal Fadili and Vincent Folliard (AISSAI)

**Bring together scientist** from astro, particle physics, computer science, statistics, industry, instrumentation, medicine, ...

Share knowledge & experience

Create collaborative environment

## **IN2P3 Semester**



July 3-7 2023, Fréjus, <a href="https://aissai-hackathon.astroinfo.in2p3.fr/">https://aissai-hackathon.astroinfo.in2p3.fr/</a>

Dedicated AISSAI Hackathon after Astroinfo 2023 school ⇒ Outcome: 3 ML projects

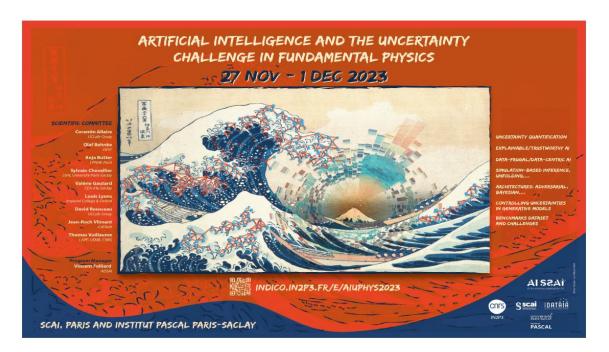
#### **IN2P3 Semester**



Oct 9-13 2023, IJCLab, https://indico.ijclab.in2p3.fr/event/9597/

1-week introductory ML school for students, engineers and physicists

### **IN2P3 Semester**



27 Nov-1 Dec 2023, Paris, Paris-Saclay, <a href="https://indico.in2p3.fr/event/30589/">https://indico.in2p3.fr/event/30589/</a>

Quantifying uncertainty in ML: uncertainty prediction, controlling impact of uncertainties

### And this is how we arrived here ...





## Laboratoire de Physique de Clermont





#### 4 major scientific field

- Particles and the Universe
- Theory
- Health, Environment, Energy
- Innovation, Technology Transfer

**35 years** of involvement with **CERN on the LHC** (detectors, data analysis...) **15 years** of activity in **Cosmology** (telescopes, brokers, supernovae...)

Research on **ionizing radiation** on living organisms and the environment

Machine learning applications in multiple science cases

## Scientific Program

- Exciting program
  - Invited talks
  - Contributed talks
  - Posters
  - Tutorials
- Update your slides at least 2 hours before your talk!
- Interdisciplinary audience extended time of each contribution aimed to allow didactic introduction
- Keep an eye on the chair
   This will help to keep schedule on time
- Questions are welcome!



## **Scientific Program - Posters**

- Posters will be displayed throughout the week
- This afternoon:
  - Lightning talks 4 min
  - Dedicated poster-discussion during the afternoon coffee break





Clermont-Ferrand	14:45 - 15:1
Enhancing Monojet searches with ML	Rafal MASELE
Clermont-Ferrand	15:10 - 15:1
Accelerating the search for mass bumps using the Data-Directed Paradigm	Ms Bruna Pascu
Clermont-Ferrand	15:14 - 15:1
Integrating Noisy Label Learning and Confidence Estimation	Dr Navid Rabba
Clermont-Ferrand	15:18 - 15:2
A deep learning approach for videobased traffic anomaly detection	Mr Tom Schumar
Clermont-Ferrand	15:22 - 15:2
Anomaly Detection for Fink	Maria Pruzhinskaya
Clermont-Ferrand	15:26 - 15:3
SEDAF: Prototype of a Real-Time Explainable Anomaly Detection System of JIECHIEU KAMENI Florentin Flambeau	n Multivariate Data Stream
Poster dedicated Coffee break	
Clermont-Ferrand	15:35 - 16:0

# **Logistics**

- Sessions start every day at 9:30am
- Coffee break in the balcony, close to the posters
- Feel free to use the white boards for discussions
- Lunch (thanks to our sponsors):
  - Monday, Tuesday and Wednesday Salle Grands Jeux
  - Thursday Balcony
- Pictures:
  - Send a private email to the LOC if you do not want your picture taken
  - Group photo: Today, before lunch: Monday, 4 March 12:25h







# **Logistics: Wifi**

Network name: Wifimeetingroy

Password: CasinoRoyat2018

Network name: Wifipartouche

no password -- register with email

## **Social events**

Welcome cocktail

Monday, 4 March, 19:00h - Hotel Saint Mart across the street





Walking tour to the old city of Clermont-Ferrand

Wednesday, 6 March
Bus will leave the Casino at 17:30h

Workshop dinner
 Wednesday, 6 March, 19:00h
 Brasserie Madeleine



Please confirm your presence with Marine!

# The LOC is here to help you!



Marine Hebert



Julien Donini



Maria Pruzhinskaya



Samuel Calvet



Emille Ishida



Cyril Galpier

aissai\_anomaly@clermont.in2p3.fr

# Have a nice workshop!













**IASSAIA** 

Anomaly Detection Workshop





March 4-7, 2024

CLERMONT-FERRAND, FRANCE







