BEYOND VISION
Physics meets AI

BEYOND VISION: *PHYSICS MEETS AI*

WORKSHOP PROGRAM

The workshop Beyond Vision: Physics meets AI, to be held within the 22nd International Conference on Image Analysis and Processing (ICIAP 2023), is the first ICIAP workshop dedicated to applications of Statistical Learning methods and Artificial Intelligence techniques to Nuclear Vision and other Physics-based technologies.

Workshop date: **11th September 2023**

TRACKS & TALKS

9:00 **"Opening remarks and Workshop introduction"**

Track 1: Nuclear & other Physics-based Imaging technologies

9:15 **"A new IBA imaging system for the transportable MACHINA accelerator",** *R. Torres* (INFN, Firenze)

9:40 **"Pigments and Brush Strokes: Investigating the Painting Techniques Using MA-XRF and Laser Profilometry",** *V. Graziani* (INFN Roma Tre & LASR3)

10:05 **"Muon Radiography for Subsurface Cavity Detection: An Adaptive Binning Approach using Voronoi Tessellation",** *A. Paccagnella (Università di Firenze)*

10:30 Coffee break

Track 2: Generative Models & Deep Learning for Physical Sciences

11:00 **"Abstracts Embeddings Evaluation: A Case Study of Artificial Intelligence and Medical Imaging for the COVID-19 Infection",** *E. Ronchieri* (INFN-CNAF)

11:25 **"Optimizing Deep Learning Models for Cell Recognition in Fluorescence Microscopy: The Impact of Loss Functions on Performance and Generalization",** *L. Clissa* (Università di Bologna & INFN, Bologna)

11:50 **"A Variational AutoEncoder for model independent searches of new physics at LHC",** *G. Lavizzari (Università di Milano Bicocca & INFN, Milano)*

ICIAP REGISTRATION FEES

	Early bid	Late fee	Onsite
Full Conference	**€700**	**€750**	**€800**
Only Workshop	**€350**	**€450**	**€450**

Student and IAPR members have a discounted fee
for more info, see https://iciap2023.org/registration/

Contact Us

bombini@fi.infn.it **castelli@fi.infn.it**
barbetti@unifi.it **dalpra@cnaf.infn.it**

Università di Udine - Toppo Wassermann College
Via Gemona, 92, 33100 Udine UD - 46.0698, 13.2341

4CH Fondazione ICSC Centro Nazionale di Ricerca in HPC, Big Data and Quantum Computing

https://physicsmeetsai.github.io/beyond-vision/ @BVPAI2023

ICIAP 2023 Udine