



# ACAT 2022

## Monday, 24 October 2022

### **Plenary: I - Sala Europa (09:00 - 11:00)**

-Conveners: Lucia Silvestris; Maria Girone

time	[id] title	presenter
09:00	[418] Welcome to ACAT 2022 in Bari	SILVESTRIS, Lucia
09:02	[419] Welcome address by INFN-Bari Director	MANZARI, Vito
09:07	[420] Welcome address by Dipartimento interateneo di Fisica Director (UniBa)	Dr MARRONE, Antonio BELLOTTI, Roberto
09:12	[425] ACAT 2022 in Bari Logistics information	SILVESTRIS, Lucia
09:30	[265] The European Processor Initiative (EPI), an status update	SUAREZ, Estela
10:00	[259] Quantum computing: a grand era for simulating fluid	Prof. LI, Rui
10:30	[271] Quantum Technologies: areas of improvement or how not to slide into quantum winter	LIEBELT, Helena

### **Plenary: II - Sala Europa (11:30 - 13:00)**

-Conveners: Maria Girone; Jerome LAURET

time	[id] title	presenter
11:30	[71] Generative Models for Fast (Calorimeter) Simulation	DIEFENBACHER, Sascha Daniel
12:00	[257] Scientific Software and Computing in the HL-LHC, EIC, and Future Collider Era	PIPARO, Danilo
12:30	[417] Towards extreme-scale agent-based simulation with BioDynaMo	BREITWIESER, Lukas

# Tuesday, 25 October 2022

## Plenary - Sala Europa (09:15 - 11:00)

-Conveners: Lucia Silvestris; David Britton

time	[id] title	presenter
09:15	[283] Updates from the organizers	NAUMANN, Axel SILVESTRIS, Lucia
09:30	[268] Machine Learning in the Search for New Fundamental Physics	KASIECZKA, Gregor
10:00	[255] Practical Quantum Computing for Scientific Applications	KIM, Jungsang
10:30	[286] Microform and Macromolecules: Archiving digital data on analog or biological storage media	APPUSWAMY, Raja

## Plenary - Sala Europa (11:30 - 13:00)

-Conveners: Domenico Elia; Michael Poat

time	[id] title	presenter
11:30	[264] Machine learning for phase space integration with SHERPA	BOTHMANN, Enrico
12:00	[269] Towards Zero-Waste Computing	VARBANESCU, Ana Lucia
12:30	[258] Lattice QCD on supercomputers with Chinese CPU	CHEN, Ying

# Wednesday, 26 October 2022

## Plenary - Sala Europa (09:15 - 11:00)

-Conveners: Leonardo Cosmai; Monique Werlen; Monique Werlen

time	[id] title	presenter
09:15	[282] Updates from the organizers	NAUMANN, Axel SILVESTRIS, Lucia
09:30	[284] AI in the SKA Era: learning semantically meaningful classification targets for radio astronomy	SCAIFE, Anna
10:00	[263] How Good is the Standard Model?	WULZER, Andrea
10:30	[262] Achievements and challenges of high-precision Standard Model physics at future e+e-colliders	USOVITSCH, Johann

# Thursday, 27 October 2022

## Plenary - Sala Europa (09:15 - 11:00)

-Conveners: Lucia Silvestris; Fons Rademakers

time	[id] title	presenter
09:15	[281] Updates from the organizers	NAUMANN, Axel SILVESTRIS, Lucia
09:30	[254] Graph Neural Networks and their application in IceCube	HAN MINH, Martin
10:00	[280] Foundation Models for Accelerated Discovery	SMITH, John
10:30	[261] Simpler, faster and bigger: HEP analysis in the LHC Run 3 era	GUIRAUD, Enrico

## Plenary - Sala Europa (11:30 - 13:00)

-Conveners: Domenico Elia; Daniel Maitre

time	[id] title	presenter
11:30	[260] Loop amplitudes at the precision frontier	BADGER, Simon David
12:00	[266] Machine Learning for Beyond the Standard Model Physics	KRIPPENDORF, Sven
12:30	[423] Quantum Science and Technology in Fundamental Physics	Prof. SPIROPULU, Maria

# Friday, 28 October 2022

## Plenary - Sala Europa (09:15 - 11:00)

-Conveners: Domenico Elia; Sophie Berkman

time	[id] title	presenter
09:15	[422] Updates from the organizers	NAUMANN, Axel SILVESTRIS, Lucia
09:30	[272] Lightning talk: The TICL reconstruction at the CMS Phase-2 High Granularity Calorimeter Endcap	REDJEB, Wahid REDJEB, Wahid
09:40	[273] Lightning talk: Binning high-dimensional classifier output for HEP analyses through a clustering algorithm	DIEKMANN, Svenja
09:50	[274] Lightning talk: Ceph S3 Object Storage for CMS data	SMITH, Nick
10:00	[270] Lattice QCD with the Supercomputer Fugaku - progress and prospects	AOKI, Yasumichi
10:30	[256] Adapting C++ for Data Science	VASILEV, Vassil

## Plenary - Sala Europa (11:30 - 13:00)

-Conveners: Lucia Silvestris; Axel Naumann

time	[id] title	presenter
11:30	[275] Track 1 Summary	PEZOA RIVERA, Raquel
11:50	[276] Track 2 Summary	NGADIUBA, Jennifer
12:10	[277] Track 3 Summary	BIEKOETTER, Anke
12:30	[278] ACAT 2022 Conclusion and Outlook	NAUMANN, Axel BRITTON, David