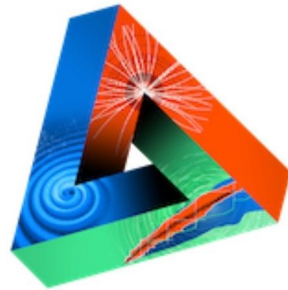


# EuCAIF WG 4: White paper JENA WP 4: Machine Learning and Artificial Intelligence Infrastructure

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May 3, 2024



**JENAA**

Joint ECFA-NuPECC-APPEC Activities

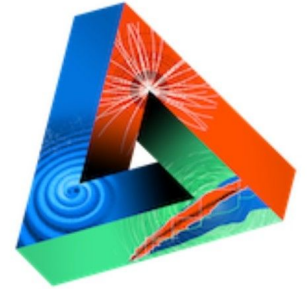
**ECFA**

European Committee for Future Accelerators

**NuPECC**

 **APPEC**

# Why this working group?



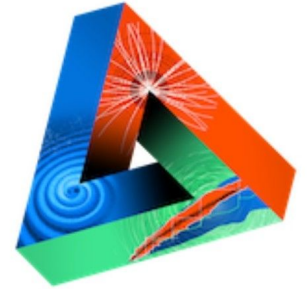
Joint ECFA-NuPECC-APPEC (JENA) Seminar in May 2022 in Madrid  
<https://indico.cern.ch/event/1040535/>

- Identification of joint computing requirements for the next decade.
- Discussions on the strategy and implementation of **European federated computing** at future large-scale research facilities.

•  
**Joint ECFA-NuPECC-APPEC Computing Initiative** workshop June 2023 in Bologna  
<https://agenda.infn.it/event/34738/>

- **Creation of five working groups** to coordinate a white paper:
  1. HTC, WLCG and HPC (HPC)
  2. Software and Heterogeneous Architectures (Software)
  3. Federate Data Management, Virtual Research Environments and FAIR/Open Data (Data)
  4. **Machine Learning (ML) and Artificial Intelligence (AI)**
  5. Training, Dissemination, Education (TDE)

# Mandate Machine Learning (ML) and Artificial Intelligence (AI) working group WP4

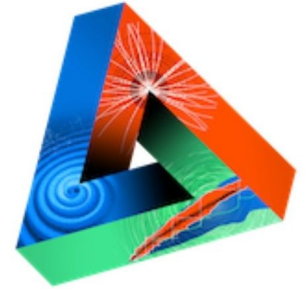


- *Follow the technologies in this fast evolving field.*
- *Analyse the potential impact on the **ENA computing infrastructure** needs.*
- *Quantify the resource needs and define the interfaces and services that are needed by physicists to run ML workloads (looking at both training and inference).*

Join the working group:

→ <https://indico.scc.kit.edu/event/3813/>

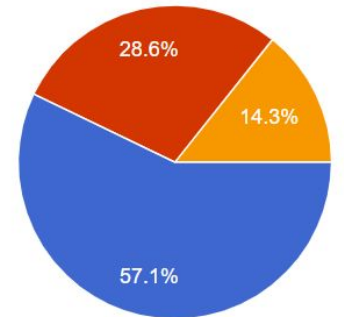
# Timescale and Vision



- Scope is the next funding rounds, i.e. upcoming ~5 years
- Timescale: Paper ready for review by end of this year (to ENA chairs by **30 November 2024**)
- Size : 10 pages + 1 page summary intended for funding agencies

## Survey as basis for recommendations

- Detailed questions on current usage of machine learning
- Questions on anticipated usage for next ~5 years
- Feedback on EuCAIFCon 2024



Survey will be sent around next week. → **Please participate!**