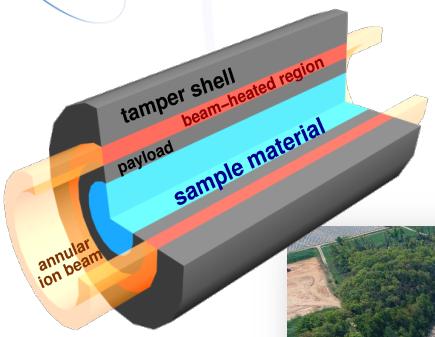
Partner Report: GSI

D. Kresan, M. Al-Turany, C. Tacke

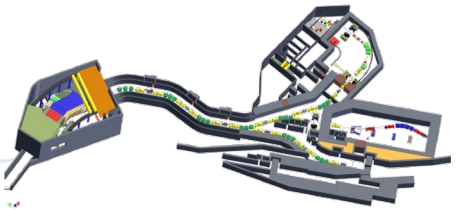
OSSR Final Workshop

November 30 – December 2, 2022

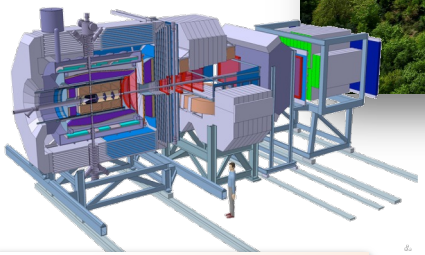
ESCAPE - The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructures has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement n° 824064.



Atomic, applied and plasma physics - APPA



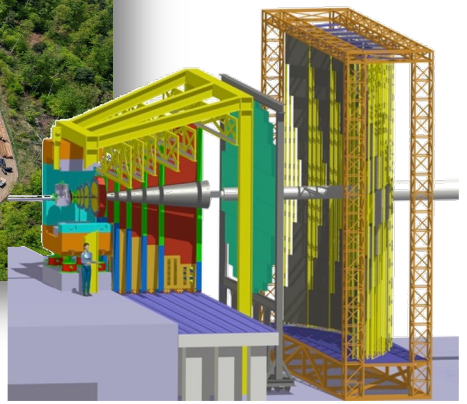
Astrophysics and nuclear structure - NUSTAR



Hadron structure - PANDA

1 TByte/s into online farms

35 PByte/year on disk



QCD phase transition - CBM

Funded by the European Union's Horizon 2020 - Grant N° 824064

Tasks performed within WP3

- GSI main contribution:
  - Task 3.2 - ESFRI Software and Services Collection
  - Task 3.3 - Common Approaches: Software and Services

Funded by the European Union's Horizon 2020 - Grant N° 824064

Matter and Technologies – Data Management and Analysis

- GSI has initiated OSSR – DMA cooperation
- DMA software projects are to be onboarded in OSSR
- GSI will take over curation of this segment

Funded by the European Union's Horizon 2020 - Grant N° 824064

Software onboarded

- FairRoot
  - A simulation, reconstruction and analysis framework that is based on the ROOT system. The user can create simulated data and/or perform analysis with the same framework.
- FairMQ
  - C++ Message Queuing Library and Framework.
- DDS
  - The Dynamic Deployment System (DDS) - is a tool-set that automates and significantly simplifies a deployment of user defined processes and their dependencies on any resource management system using a given topology.
- R3BRoot (as first DMA project)
  - Software for simulations and data analysis of Reactions with Relativistic Radioactive Beams experiment at FAIR.

Funded by the European Union's Horizon 2020 - Grant N° 824064

What do we gain from OSSR?

- Establish modern collection-/link-site with one entry point for *software*
- Find solutions and environments for workflows rather than services
- Not only the software itself but also the environment that enables the scientific community to use/test the software, e.g. documentation, continuous integration and deployment services and evaluation data sets.

Funded by the European Union's Horizon 2020 - Grant N° 824064

What's next?

- Open for new ideas, suggestions
- We are here to discuss…

Funded by the European Union's Horizon 2020 - Grant N° 824064

Thank you.

ESCAPE - The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructures has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement n° 824064.