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## Nuclear, Astro, and Particle Metadata Integration for eXperiments (NAPMIX)

*Monday 4 November 2024 14:00 (1 hour)*

The Nuclear, Astro, and Particle Metadata Integration for eXperiments (NAPMIX) project was recently awarded funding within the scope of the OSCARS call on open science and will start in December 2024. The project aims to facilitate data management and data publication under the FAIR principles on the European level by developing a cross-domain metadata schema and generator, tailored for diverse datasets. It focuses on creating a standardised, adaptable framework that enhances FAIR data. By creating a comprehensive and adaptable metadata schema, the project will ensure scalable integration of both machine and human-readable metadata, thereby improving the efficiency of data discovery and utilization.

A pivotal component of the scheme is its nodal, multi-layered schema structure, allowing metadata enrichment from multiple domains while maintaining essential overlaps for enhanced versatility. This comprehensive approach supports the unification of data standards across various research institutions, promoting interoperability and collaboration on a European scale. Our efforts will extend to the development of a user-friendly frontend generator, designed not only to facilitate metadata input but also to allow users to specify field-specific attributes, customize generic names to suit their needs, and export schemas in various formats such as JSON and XML, adhering to different nomenclatures. In addition, API's will be developed to enable automated metadata generation.

The project involves RIs and ESFRIs, and leverages synergies from existing Open Science initiatives like EOSC, ESCAPE, EURO-LABS, and PUNCH4NFDI. In this contribution, we will present an overview of the project, detailing the development steps, key features of the metadata schema, and the functionality of the frontend generator.

As a starting point, a pilot study has been completed at GSI to develop a backend database structure. This poster will describe the development steps of the pilot study and discuss the planned implementation of the NAPMIX project.

**Please specify "other"**

**In addition, please add 3 to 5 keywords.**

Nuclear, Astrophysics, Particle Physics, OSCARS, Schema

**Please specify "other"**

**For whom will your contribution be of most interest?**

Data professionals and stewards

**Please assign yourself (presenting author) to one of the following groups.**

Data professionals and stewards

**Primary author:** Dr MISTRY, Andrew. K. (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

**Presenter:** Dr MISTRY, Andrew. K. (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

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