

HELPMI: HELmholtz Laser-Plasma Metadata Initiative

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HELPMI is a 2-year project, subsidized by the Helmholtz Metadata Collaboration, conducted by GSI, HI Jena and HZDR (lead). The aim is to start the development of a F.A.I.R. data standard for experimental data of the entire laser-plasma (LPA) community. Such standard does not yet exist. It will facilitate management and analysis of usually quite heterogeneous experimental data and logs by rich and machine-actionable metadata, allowing automated processing of broad and long data sets. To date, the LPA community is widely using openPMD, an open meta-standard, well-established for simulations. NeXus is a similarly hierarchical and extensible standard for various experimental methods of the Photon and Neutron science community. Within HELPMI, we plan to adopt NeXus for LPA experimental data and simultaneously to make openPMD and its API extensible for custom hierarchies like NeXus. Thereby we can achieve interoperability of the standards, circumventing the need for another standard. Alongside we will start developing a glossary of LPA experimental terms in order to achieve re-usability. The glossary shall be community-driven and technically open, extensible and implementation-independent.

Autori principali: DEBUS, Alexander (Helmholtz-Zentrum Dresden-Rossendorf); KESSLER, Alexander (Helmholtz-Institute Jena); POESCHEL, Franz (CASUS/HZDR); SCHLENVOIGT, Hans-Peter (Helmholtz-Zentrum Dresden - Rossendorf); HORNUNG, Johannes (GSI); KALUZA, Malte (University of Jena, Helmholtz-Institute Jena); BUSSMANN, Michael (Helmholtz-Zentrum Dresden-Rossendorf); SCHRAMM, Ulrich (Helmholtz-Zentrum Dresden-Rossendorf); BAGNOUD, Vincent (GSI)

Relatore: SCHLENVOIGT, Hans-Peter (Helmholtz-Zentrum Dresden - Rossendorf)

Classifica Sessioni: WG7: Beam diagnostics, instrumentation, Machine Learning

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