

Environmental Computing and Data Management at LRZ

Sunday, 31 March 2019 09:00 (45 minutes)

Addressing the growing area of Research Data Management (RDM) in today's data-driven science, the Research Department of Leibniz Supercomputing Centre (LRZ, Garching, Germany) has formed a RDM Team. Here, we give an overview about current projects of this team and the whole Department. These projects bring together Environmental Computing with RDM, following FAIR principles.

In fact, RDM as a topic at LRZ has been prominently driven by environmental projects, such as the Alpine Environmental Data Analysis Centre (AlpEnDAC.eu), the climate and hydrology supercomputing projects ClimEx and ViWA (www.climex-project.org, viwa.geographie-muenchen.de), and the projects ePIN and BAYSICS (see later talks). On the other hand, LRZ has been involved in a pure and focused FAIR-RDM effort: the project "Generic Research Data Infrastructure" (www.GeRDI-project.eu), building a common German scientific data search and management system. Recently, the EU Project LEXIS was launched to improve mixed "Supercomputing+Cloud" workflows, including a data-management and Environmental Computing component as well.

To integrate these efforts, the RDM team - collaborating with our Environmental Computing team - is developing a lightweight framework (codenamed "Let the Data Sing"/LTDS) for projects with FAIR RDM at LRZ. LTDS will store standardised metadata for Supercomputing data sets (e.g. ClimEx / ViWA), and make these findable in GeRDI by exposing the metadata via OAI-PMH. A functionality to assign DOIs to data sets at LRZ will be implemented as well as landing pages allowing users to access the actual data.

In the course of our development, we are happy to collect feedback to our ideas at workshops and conferences. This shall allow for an optimum design of the details of LTDS and GeRDI.

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