Research Facilities 2.0 - Sustainable Computing

The EU funded project Research Facilities 2.0 has the aim to make large scientific infrastructures and institutes more sustainable.

Within the project green and sustainable concepts for the computing infrastructures at DESY for scientific data storage and data analysis are being developed. This not only happens in close collaboration among the various IT teams, but also within other DESY groups and other research infrastructures in Germany.

In this context the sustainability potentials of different computing strategies can be tested such as:

- the use of servers based on different architectures (ARM / RISV-V / AMD)

- the analysis of different machine specs in terms of efficiency in power and work done
- server based power reduction options as for instance frequency reduction.
- options to investigate power reduction options for storage and/or network (especially InfiniBand).
- strategies for running work differently to avoid times where power generation is dirtier

Students with more experience in software development can potentially contribute to an initial concept of a digital twin of the computing infrastructure at DESY.

Group

IT

Project Category

B5. Computing

DESY Site

Hamburg

Special Qualifications

comfortability with a UNIX terminal/commands, some prior coding experience

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