

New Techniques for Operational Control and Performance Optimization at the Light Source BESSY II

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In order to improve the performance as well as the experimental setups at the large-scale user facility BESSY II (operated by the Helmholtz-Zentrum Berlin), both the beamline and the machine groups have started working towards setting up the infrastructure to introduce modern analysis, optimization and automation based, among others, on Machine Learning techniques. We introduce some of these first tools concerning data acquisition, simulation, machine measurement prediction and parameter tuning as well as organisational topics such as collaborations and infrastructure.

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