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## Leveraging Jupyter on Maxwell HPC: joyful, visual and green computing

Jupyter notebooks are great tools to mitigate the complexities of (heterogeneous) HPC systems - like the Maxwell cluster at DESY which serves the computational needs of all user facilities on campus, as well as a wide variety of applications ranging from plasma accelerators to quantum chemistry. We aim to expand the Jupyter ecosystem utilizing python application frameworks to provide application environments with real-time visualization capabilities and tailored to the needs of (less experienced) users. On this basis we are implementing for example Jupyter-driven remote desktops, user-friendly dashboards to compose or monitor batch-jobs, and visual frontends for data catalogues like SciCat. The Jupyter extensions are accompanied by visual tools for resource utilization and CO2 footprints suitable for both users and administrators.

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### Keywords

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