

Big Data Python ecosystem for HEP analysis (Eduardo Rodrigues / University of Liverpool)

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Data analysis in High Energy Physics (HEP) has evolved considerably in recent years, with “Big Data” tools being ever more used. Python as a programming language for analysis work is established and a HEP-specific ecosystem connecting well with the wider scientific Python ecosystem is both mature at this point and under continuous development.

I will discuss HEP data as Big Data, Python and its analysis ecosystem provided by various community domain-specific projects. I will dwell in particular on the Scikit-HEP project, which I started in late 2016 with a few colleagues from various backgrounds and domains of expertise. It is now part of the official software stack of the experiments ATLAS, Belle II, CMS, KM3NeT and LHCb.

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