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The IRIS-HEP Analysis Grand Challenge

Saturday, 9 July 2022 09:00 (15 minutes)

Analysis workflows commonly used at the LHC experiments do not scale to the requirements of the HL-LHC. To address this challenge, a rich research and development program is ongoing, proposing new tools, techniques, and approaches. The IRIS-HEP software institute and its partners are bringing together many of these developments and putting them to the test in a project called the "Analysis Grand Challenge" (AGC).

The AGC aims to demonstrate how novel workflows can scale to analysis needs at the HL-LHC. It is based around a physics analysis using publicly available Open Data and includes the relevant technical requirements and features that analysers at the LHC need. The analysis demonstration developed in this context is heavily based on tools from the HEP Python ecosystem and makes use of modern analysis facilities.

This talk will review the state of the ecosystem, describe the status of the AGC, and showcase how the envisioned workflows look in practice.

In-person participation

Yes

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