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Recent developments in the Awkward Array world

In recent years, Awkward Array, Uproot, and related packages have become the go-to solutions for performing High-Energy Physics (HEP) analyses. Their development is driven by user experience and feedback, with the community actively shaping their evolution. User requests for new features and functionality play a pivotal role in guiding these projects.

For example, the Awkward development team has been working on new features, performance improvements, and memory safety measures. Key achievements include:

- Named axes in Awkward Array

- Significant performance improvements in Awkward Array, with even larger gains for Vector in realistic analysis scenarios

- Non-growing memory consumption for consecutive reads of the same opened file in Uproot

In this contribution, we discuss how Awkward Array continuously adapts to meet the diverse and evolving needs of its users. We will detail these key achievements and their impact on end-user analyses.

Significance

References

Experiment context, if any

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