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Constructing HEP vectors and analyzing HEP data using Vector

Tuesday 13 September 2022 15:30 (30 minutes)

Vector is a Python library for 2D, 3D, and Lorentz vectors, including arrays of vectors, designed to solve common physics problems in a NumPy-like way. Vector currently supports pure Python Object, NumPy, Awkward, and Numba-based (Numba-Object, Numba-Awkward) backends.

This talk will focus on introducing Vector and its backends to the HEP community through a data analysis pipeline. The session will build up from pure Python Object based vectors to Awkward based vectors, ending with a demonstration of Numba support. Furthermore, we will discuss the latest developments in the library's API and showcase some recent enhancements.

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