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Python in High-Energy Physics

Wednesday, June 19, 2019 2:00 PM (30 minutes)

In high-energy physics (HEP), C++ is still the dominant language, but Python is continuously growing and should overtake C++ in the near future. In the industry, Python is already the dominant language for data science and driving the leading frameworks for machine learning. In this talk, I will show these and other interesting facts and explain how a "slow" interpreted language like Python is able to beat a "fast" language like C++, in a field where code execution speed actually matters. I will present the Scikit-HEP project that aims to provide key functionality in Python for HEP analyses that's currently missing, like suitable histograms. Finally, I will argue why the upcoming ROOT 7, the first backward incompatible change in ROOT's history and a bold step forward, will not win the users back.

Summary

This is based on a talk that I gave for the PyGamma workshop.

Author: DEMBINSKI, Hans (Max Planck Institute for Nuclear Physics, Heidelberg)

Presenter: DEMBINSKI, Hans (Max Planck Institute for Nuclear Physics, Heidelberg)

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