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## A new PyROOT: Modern, Interoperable and more Pythonic

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PyROOT is the name of ROOT's automatic Python bindings, which allow to access all the ROOT functionality implemented in C++ from Python. Thanks to the ROOT type system and the Cling C++ interpreter, PyROOT creates Python proxies for C++ entities on the fly, thus avoiding to generate static bindings beforehand.

PyROOT has been enhanced and modernised to meet the demands of the HEP Python community. On the one hand, it has been redesigned on top of the new Cppyy library, in order to benefit from the modern C++ features supported by the latter. On the other hand, PyROOT is now interoperable with other tools from the Python data science ecosystem, such as NumPy and pandas, being able to expose ROOT data to those tools and vice-versa. Moreover, PyROOT improved on customizing Python language features for C++ objects to blend in seamlessly in the Python ecosystem.

### Consider for promotion

No

**Authors:** TEJEDOR SAAVEDRA, Enric (CERN); WUNSCH, Stefan (KIT - Karlsruhe Institute of Technology (DE)); GALLI, Massimiliano

**Presenter:** TEJEDOR SAAVEDRA, Enric (CERN)

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