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Python for Scientific programming

Python is a high-level, dynamic, general-purpose programming language. It is remarkable for the clarity and expressive power it offers in exchange for a relatively low learning investment.

Python is designed to be extensible with low-level languages. SciPy is a collection of efficient tools for scientific programming, exposed as Python modules. Cython is a compiler for (an extended version of) Python which makes it possible to turn Python code in to highly efficient low-level extension modules, or to link Python code to existing low-level libraries.

Combining Python with packages such a SciPy and Cython, provides the programmer with the best of both worlds: the high productivity and ease of use of the Python language combined with the efficiency of low-level components.

This session introduces the Python language, highlighting its flexibility and expressivity and contrasting it to more static and low-level languages such as C++. It goes on to explore how highly performant programs can be developed in Python with the help of SciPy and Cython.

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