Sciris: a Python library to simplify scientific computing

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Sciris is a library of tools that make it faster and more pleasant to write scientific Python code. Built on top of NumPy and Matplotlib, Sciris provides functions covering a wide range of common array and plotting operations. This means you can get more done with less code, and spend less time looking things up on StackOverflow. ScirisWeb is an extension of Sciris that allows you to build Python webapps without reinventing the wheel – kind of like Shiny for Python. In contrast to Plotly Dash and Streamlit, which have limited options for customization, ScirisWeb is completely modular, so you have control over which tools to use for which aspects of the project. Out of the box, ScirisWeb provides a "just works" solution using Vuejs for the frontend, Flask as the web framework, Redis for the (optional) database, and Matplotlib for plotting. But if you want a React frontend linked to an SQL database with Plotly figures, ScirisWeb can serve as the glue holding all of that together.

Scientific computing | Plotting | Parallelization | Data structures | NumPy | Matplotlib

1 Introduction

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2 Methods

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3 Results

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4 Discussion

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References

Contributions TBC

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