

Interactive Visualization Webapp with Plotly/Dash

Many insights can be obtained almost effortlessly via interactive visualizations. Simple-to-use methods like Python Jupyter and Julia Pluto are not really suitable for wide deployment due to server startup delays. Plotly/Dash instead produces a website with instantaneous feedback.

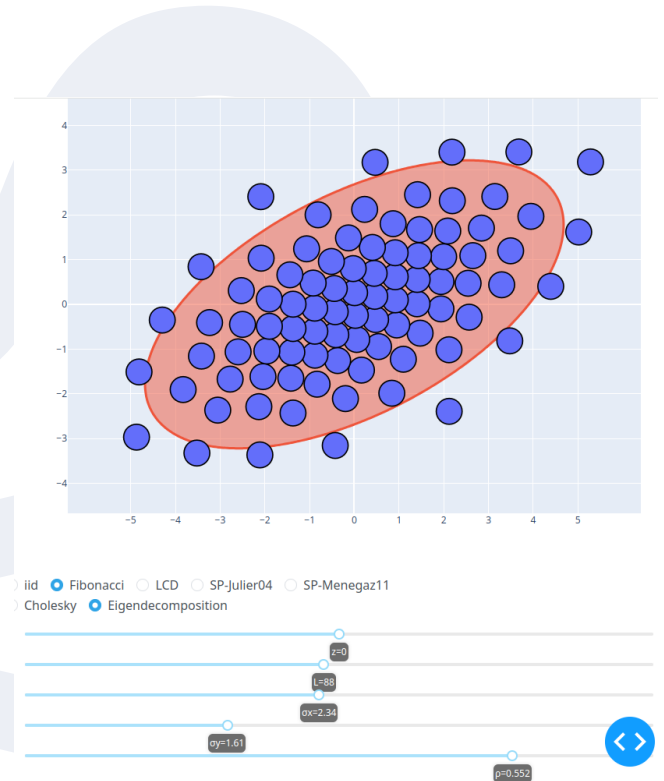
We plan to create an interactive webapp that conveys basic knowledge for teaching, like 2D and 3D probability densities and inner workings of state estimators, as well as novel insights from our research like deterministic sampling methods. We also plan to create an API for certain functionalities like sample reduction.

What to do

- Implement scientific part in Python
- Create user interface with Plotly/Dash

A preliminary version is online here:

<http://193.196.38.30:8080/>



Requirements:

Students with a background in computer science, mathematics, electrical engineering, or other engineering majors. Pre-knowledge in Mathematica and Julia are welcome. Strong self-motivation, reliability, mathematical skills, and critical mind are expected.

Emphasis:

Theoretical Study

Software Implementation

Hardware Implementation

We offer:

- excellent support and advice
- highend infrastructure
- contact to industry and research partners

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