



School of Natural Sciences Applied Math Seminar Series

UCMERCED

Jupyter, A Modern Tool For Open Science

Date:

Friday,
09/23/16

Time:

3:30 pm

Location:

COB 113

For More
Information
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By Matthias Bussonnier

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Abstract:

Scientific research these rely more on a variety of software from drafting of ideas to publication. The use of multiple often incompatible tools often slow the researcher and increase the number of potential mistakes that need to be checked for everyday workflow. The Jupyter Project (Previously IPython), is an open source (BSD) set of tools which are meant to cover the life-cycle of research, from data-collection to publication in a single set consistent environment. The Jupyter Project started its life in 2001, and has grown recently to a full web-scale capable project that unify how to interact with now more than 40 languages. The project's flagship application is the Jupyter Notebook, a web-application that allow you to explore your data interactively, as well as intersperse your code with narrative text that support math and rich media as well I make full use of custom representation (like LaTeX) for computation results. The notebook document format also allow publication in form of Paper, Book, or Blog which are fully reproducible and executable. We will discuss how this tool can be used in the context of Open Science as well as the benefits of Open Source at large in research.

Bio:

I am a PostDoc at UC Berkeley Institute for Data science, and have been a core Developer of IPython and Jupyter for a couple of years. With a background in Physics and a small PhD detour in BioPhysic, I know spend most of my time developing open-source tools for the scientific community and for education as well as promoting Python.