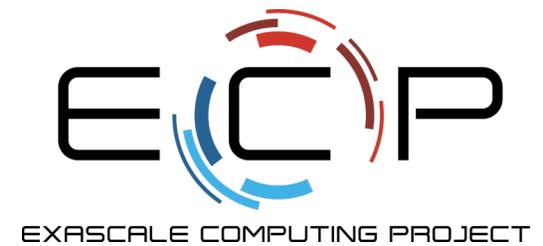


# Exploring Visualization with Jupyter Notebooks

Presented to  
**ATPESC 2017 Participants**

**Joe Insley, Michael E. Papka, and Silvio Rizzi**

Q Center, St. Charles, IL (USA)  
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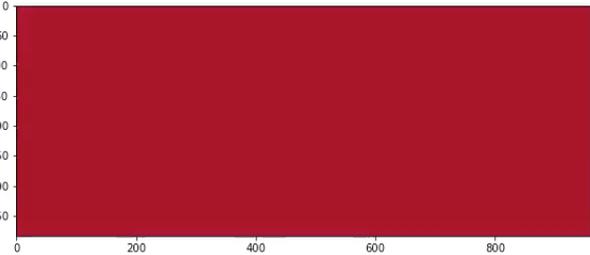
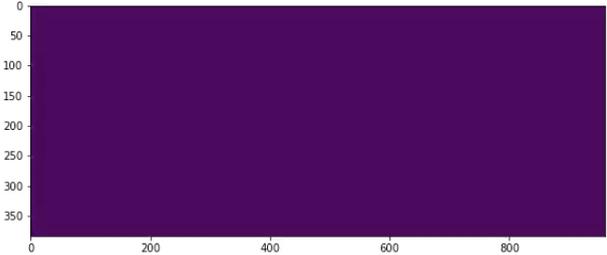
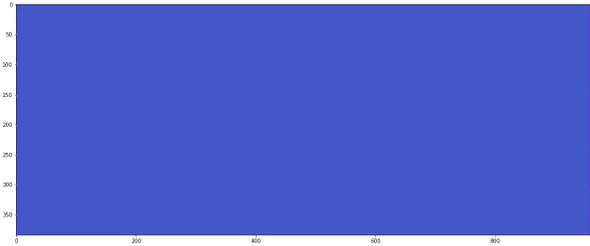
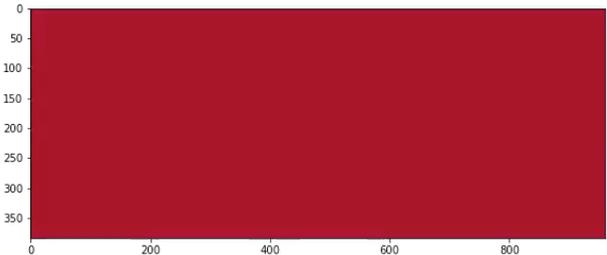
# Agenda

- **Why use Jupyter**
- **What is Jupyter**
- **Introduction to Jupyter**
- **Python and Jupyter**
- **R and Jupyter**

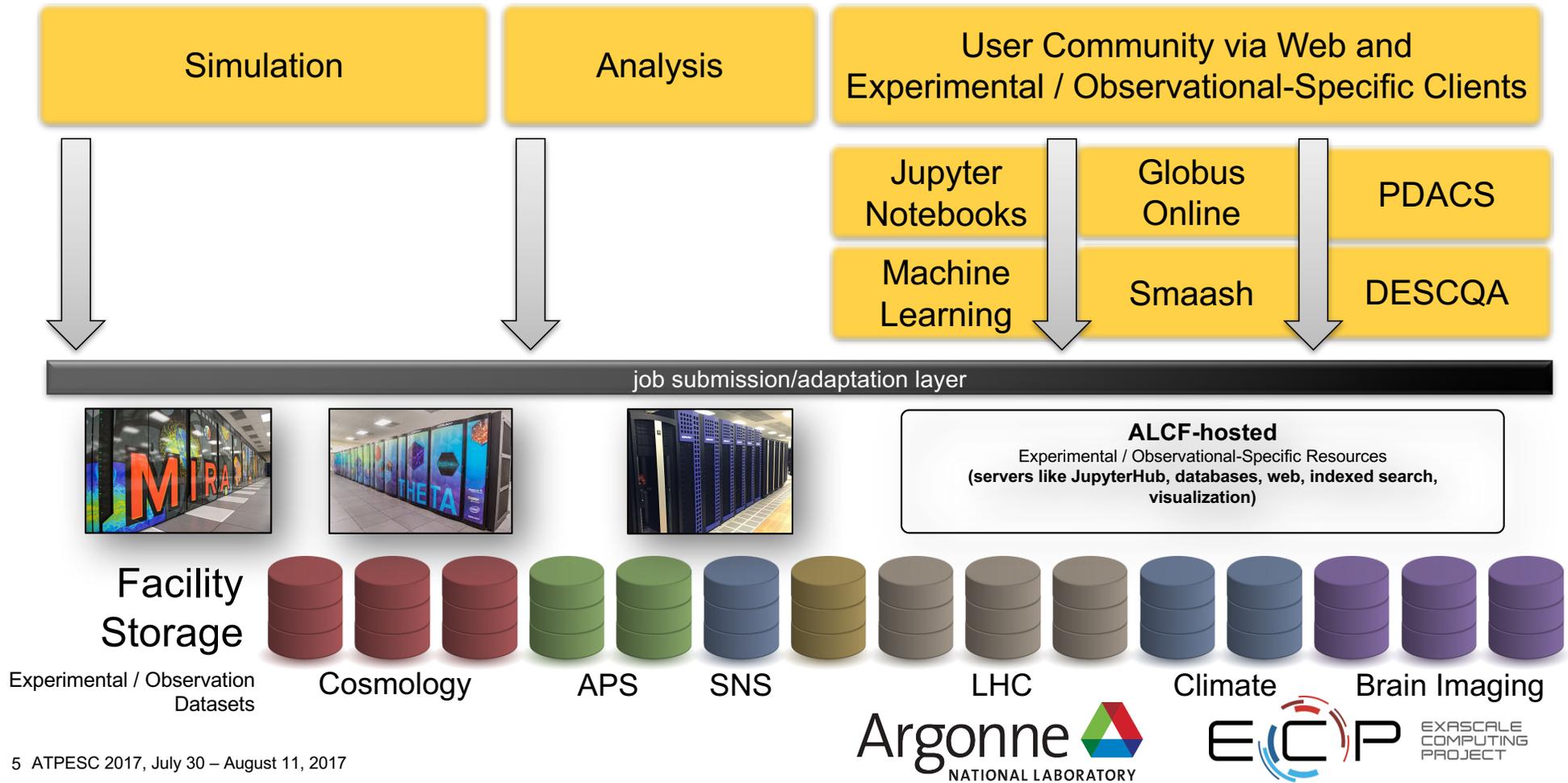
# Why use Jupyter?

- Reproducibility
- Record what you have tried
- Training and education

# Example



# Adapting ALCF to Science Beyond Simulation



# What are Jupyter Notebooks

- Jupyter notebooks are the evolution of iPython (<http://jupyter.org/>)
- Is an open source web based application that supports **live code**
  - Supports more than just python (e.g. R, Julia and Scala)
  - Supports sharing of notebooks
  - Supports interactive widgets
  - Supports big data integration
- Captures transformations of data, record of actions, allows for reproducible **SCIENCE**