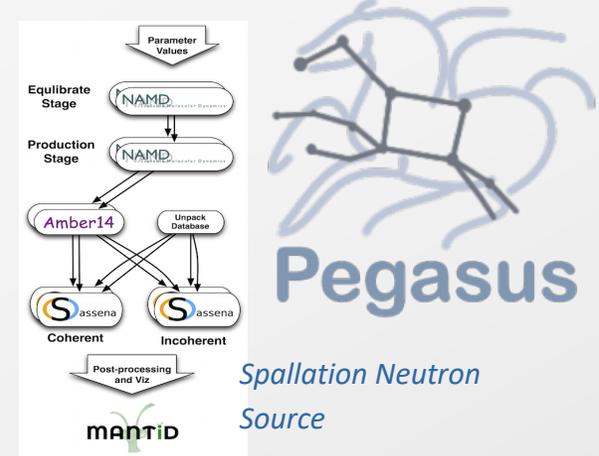
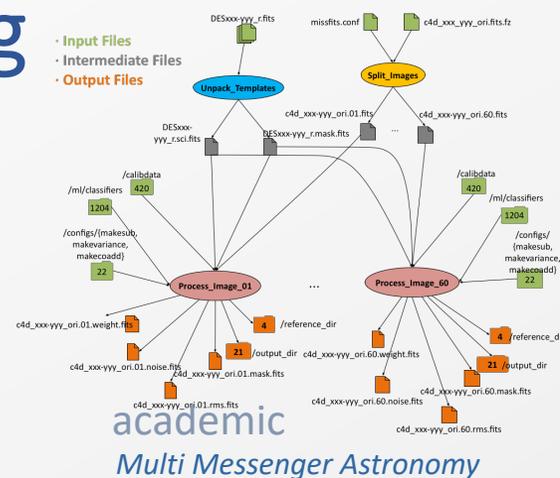


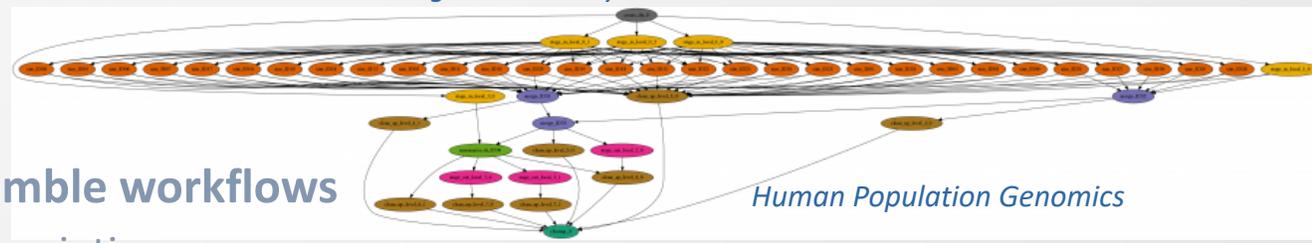
# Pegasus: Automate, Recover, Debug

- Input Files
- Intermediate Files
- Output Files



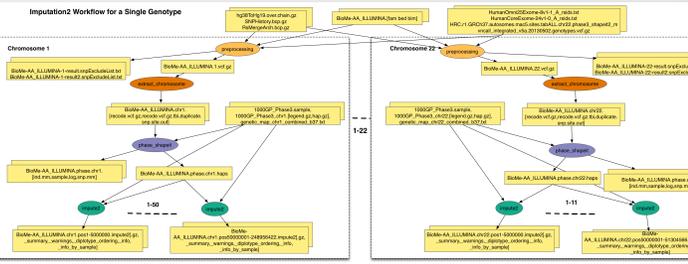
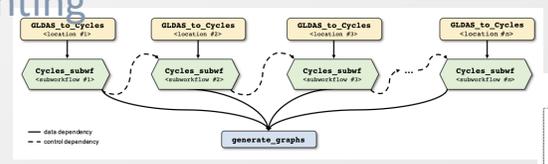
Ewa Deelman, University of Southern California, PI

- Collaboration with Miron Livny, HTCondor
- Construct workflows in your favorite language (also Jupyter)
- Portability across heterogeneous infrastructure
  - Separation of workflow description and execution
  - Support for campus and leadership class clusters, OSG, XSEDE, and commercial clouds
  - Can interact with a number of different storage systems (with different protocols)
  - Supports containers

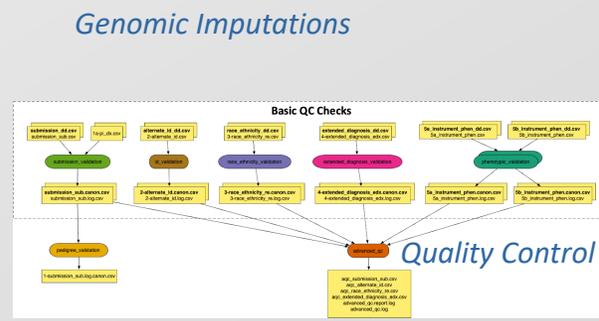
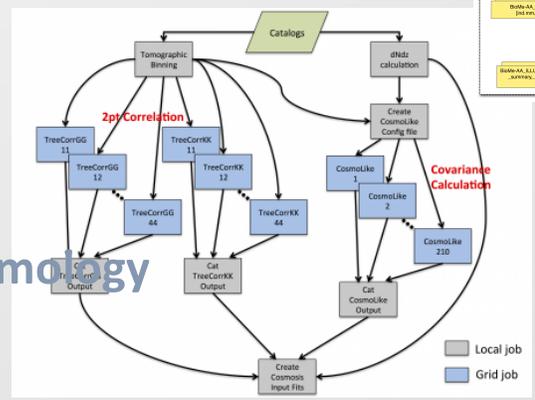


- Supports data reuse— useful in collaborations and ensemble workflows
- Reliability: Recovers from failures, retry, workflow-level checkpointing

- Scalability: O(million) task, O(TB) data in a workflow
- Restructures workflow for performance



- Supports reproducibility
- Web-based monitoring and debugging tools
- Can be included in various user-facing infrastructures
- Open source, available on Github



- Since 2001 used in astronomy, bioinformatics, climate modeling, earthquake science, molecular dynamics, helioseismology
- Funded by NSF under grant #1664162

<http://pegasus.isi.edu>

Weak Lensing Pipeline