Thank you for joining us. The presentation will begin shortly.

Pegasus is funded by the National Science Foundation under grant #1664162
Pegasus Office Hours!
Questions from Registration

- The new Python3 API and its use cases.
  - The new Python API allows users to compose workflows, create various catalogs Pegasus relies on. In addition, allows you to submit/monitor/debug your workflows
Questions from Registration

- Developing data-driven workflows, e.g., that listen to available new data sets.
  - Ensemble Manager has notion of triggers that can be used to spawn new workflows.
    - file pattern based cron trigger
  - Where does your data reside?
    - remote database
    - file server
    - cloud storage
Questions from Registration

- Computational chemistry, structural chemistry, molecular dynamics and Monte Carlo simulations
  - There are Pegasus workflows developed in these areas.
  - One of which is Nanodiamond refinement workflow provided by scientists at the Spallation Neutron Source (Oak Ridge National Laboratory) ([https://github.com/papajim/SNS-Nanodiamond-Workflow](https://github.com/papajim/SNS-Nanodiamond-Workflow))
  - Pegasus Hub examples
Questions from Registration

- Big Data, Data Management
  - Pegasus strives to provide complete data management for your workflows from
    - discovering locations of input data
    - staging input data/application containers efficiently to your execution environment
    - staging out outputs to user specified location
    - cleaning up data that is no longer required
Questions from Registration

- Approaches and tricks that can be applied to various problems to receive high throughput.
  - The user guide has a list of tips and tricks
    - https://pegasus.isi.edu/documentation/user-guide/optimization.html
Questions from Registration

- Using containers (Docker and Singularity) in workflows.
  - Pegasus has well defined support for both docker and singularity containers. Users in their transformation catalog can refer to the container they want their jobs to execute in
  - [https://pegasus.isi.edu/documentation/user-guide/containers.htm](https://pegasus.isi.edu/documentation/user-guide/containers.htm)
Questions from Registration

- Batch/parallel processing jobs
  - [https://pegasus.isi.edu/documentation/user-guide/execution-environments.html#hpc-clusters](https://pegasus.isi.edu/documentation/user-guide/execution-environments.html#hpc-clusters)
Questions from Registration

- In situ analytics in Pegasus-based workflow
  - Pegasus has preliminary support for decaf as a means to run in situ applications
  - We have an ongoing research effort studying how Pegasus could benefit from in situ frameworks such as Decaf or DataSpaces
Thank You!