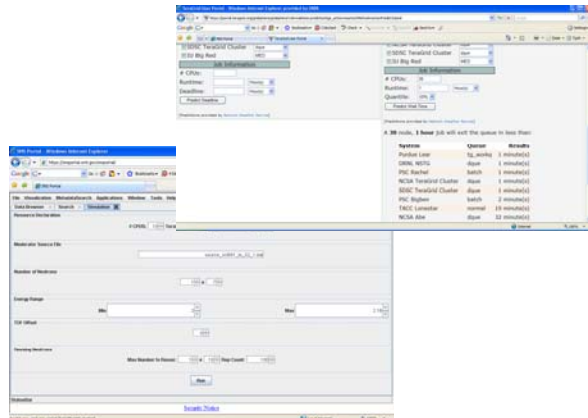


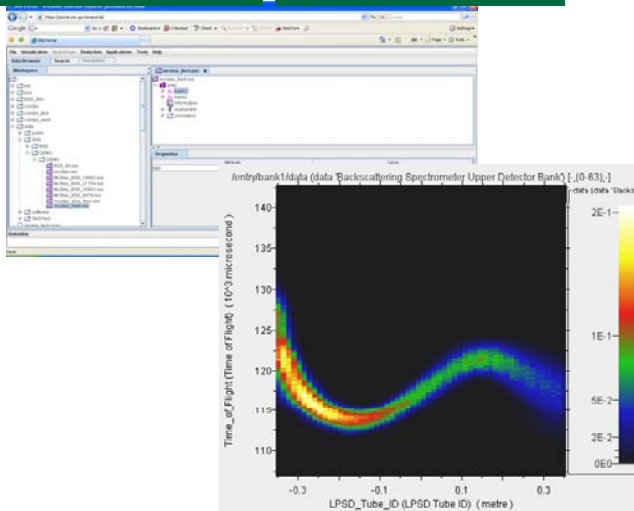
Neutron Science TeraGrid Gateway

Modeling & Simulation Group



“Jimmy Neutron”
TeraGrid
Community Account

“Jimmy Neutron”
X.509
Certificate



Problem Statement:

Make parallel neutron science applications accessible through the Neutron Science Portal that utilizes the distributed computing resources of the NSF TeraGrid. (PI: John Cobb)

Technical Approach:

Parallelize & optimize neutron science applications on the TeraGrid.

Use Jimmy Neutron Community Certificate & Jimmy Neutron TeraGrid Community accounts to run applications from the Neutron Science Portal.

Benefit:

McStas, a neutron ray-trace simulation package & fitting service will soon be available with:

- Improved performance with MPI parallel implementation
- Standardized NeXus output
- Improved visualization with Neutron Science Portal viewer