**Visualization for Geo Sciences**
**David Pugmire (ORNL)**

**VisIt and ADIOS**
- **VisIt**: Large data parallel visualization tool
  - Rich set of visualization and analysis plots and operations
  - Plug-in API allows for easy extension
- **ADIOS**: adaptable I/O framework
  - Provides portable, fast, scalable, easy-to-use, metadata rich output with a simple API

**Result/Impact**
- Developed a parallel SpecFM3D ADIOS reader for their data
- Providing comparative analysis with the mesh interpolation capability in VisIt
- Parallel analysis and visualization possible now on whole earth geo science simulations

**Future Directions**
- Development of feature detection and comparative analysis algorithms
- Development of geo-science centric rendering and analysis techniques
- ADIOS Visualization Schema for post processing needs

Visualization of data from SpecFM3D. Simulation by J. Tromp (Princeton)