

Relativistic Radiation from Kelvin-Helmholtz Instability

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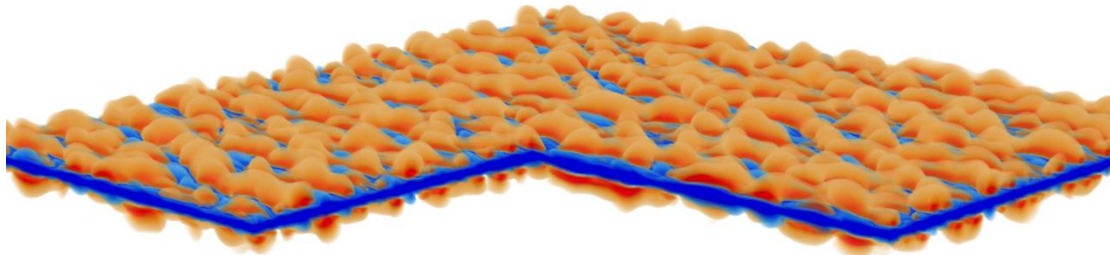
VisIt and PIconGPU

- **VisIt: Large data parallel visualization tool**
 - Rich set of visualization and analysis plots and operations
 - Plug-in API allows for easy extension
- **PIConGPU: Particle code running on Titan**
 - Simulation of hundreds of billions of particles on 18,000 nodes of Titan

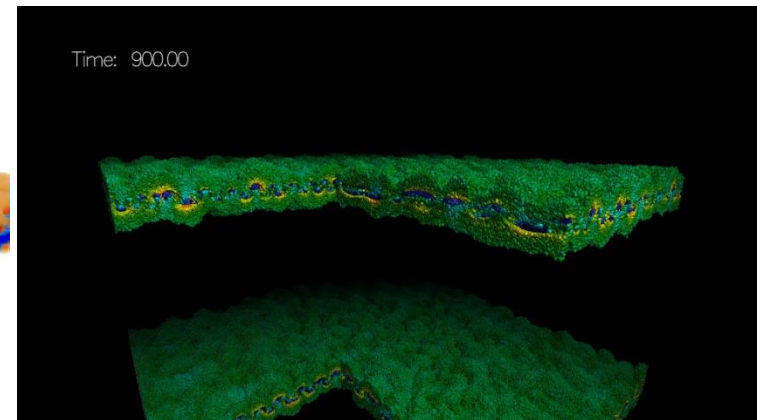
Result/Impact

- Developed a VisIt data reader for the field data in the simulation.
- Developed particle rendering techniques to look at selected particles for analysis
- Aided in analysis for Gordon Bell prize finalist project, and several presentations and publications

Visualizations



Magnetic field generated by the currents at the shear surface



Electrons filtered by momentum