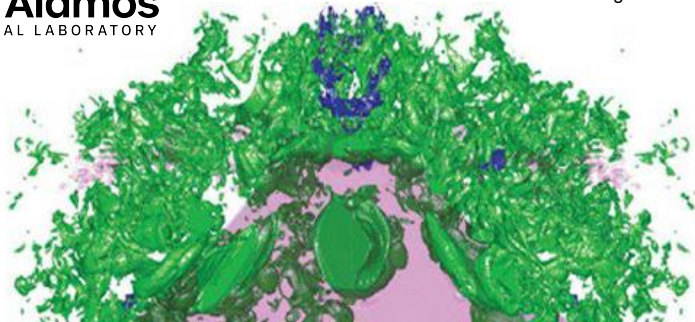


LANL Co-Design Summer School



Figure Credit: xRage LANL



Radiation Hydrodynamics at Scale using FleCSI

Apply now: codesign.lanl.gov

Deadline: January 7th 2024

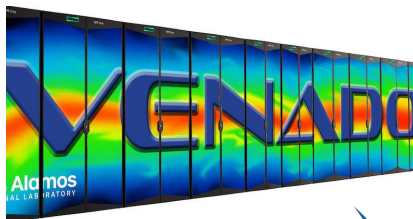
Goal: Develop a rad-hydro code based on FleCSI. This application will be run at scale on the NVIDIA superchip, Grace-Hopper, featured in the supercomputer Venado at LANL. The computer scientists, applied mathematicians and physicists will work together in a Co-Design manner to write a radiative diffusion library and couple it to their hydro code. Multiple physics problems can then be run with this tool: Lowrie radiating shock, Su-Olson Marshak wave or whatever problem is of interest to the team of students. The FleCSI application, base for this development, feature several topologies and backends to run the application at scale using task-based parallelism.

The School: During 10 weeks in the summer, a team of six students with multidisciplinary backgrounds will work in a Co-Design manner to reach the school goal.

Salary: \$9-12k based on education and experience

Research areas:

Computer Science (HPC),
Rad-Hydro,
Iterative/Multigrid Solvers.



Send any questions to cdss@lanl.gov