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Title: SDAV Viz July Progress Update: LANL

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Abstract

July SDAV Progress at LANL

VPIC (Vector Particle in Cell) Kinetic Plasma Simulation Code:

- Implemented first version of an in-situ adapter based on Paraview CoProcessing Library

- Three pipelines: vtkDataSetMapper, vtkContourFilter, vtkPistonContour

- Next: resolve issue at boundaries of processor domains; add more advanced viz/analysis pipelines

Halo finding / merger trees

- Summer student Wathsala W. from University of Utah is working on data-parallel halo finder algorithm using PISTON

- Timo Bremer (LLNL), Valerio Pascucci (Utah), George Zagaris (Kitware), and LANL people are interested in using merger trees for tracking the evolution of halos in cosmo simulations; discussed possible overlap with work by Salman Habib and Katrin Heitmann (Argonne) during their visit to LANL 7/11

PISTON integration in ParaView

- Now available from ParaView github

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