

DOE Computer Graphics Forum

Hotel Indigo, Savannah, GA

April 24-26, 2018

Site Chair: Dave Pugmire

Program Chair: Kenny Gruchalla

Tuesday April 24, 2018

8:00am - 8:30am	Working Breakfast Topic: Agenda Overview	Leader: Kenny Gruchalla
8:30am - 10:30am	Site Reports	Chair: Kenny Gruchalla
8:30am	Welcome	Dave Pugmire
8:45am	Argonne National Laboratory (ANL)	Joseph Insley
9:00am	Brookhaven National Laboratory (BNL)	Wei Xu
9:15am	DoD HPCMP PETTT	Sean Ziegeler
9:30am	DoD HPCMP PETTT Data Analytics	Rhonda Vickery
9:45am	Defense Supercomputing Resource Center	Jonathan Buck
10:00am - 10:30am	Break	
10:30am - Noon	Site Reports	Chair: Joseph Insley
10:30am	Idaho National Laboratory	James Money
10:45am	Lawrence Berkeley National Laboratory (LBNL)	Wes Bethel
11:00am	Lawrence Livermore National Laboratory (LLNL)	Eric Brugger
11:15am	National Center for Supercomputing Applications (NCSA)	Roberto Sisneros
11:30am	National Renewable Energy Laboratory (NREL)	Kenny Gruchalla
11:45am	Los Alamos National Laboratory	Jen Green
Noon - 1:00pm	Working Lunch Topic: Cross-Lab Collaborations	Leader: David Pugmire
1:00pm - 1:45pm	Site Reports	Chair: Wes Bethel
1:00pm	Oak Ridge National Laboratory	Dave Pugmire
1:15pm	Sandia National Laboratory	Alan Scott
1:30pm	University of Oregon	Roba Binyahib
1:45pm - 2:30pm	Program Manager Update	Chair: Wes Bethel
1:45pm	Office of Advanced Scientific Computing Research (ASCR)	Laura Biven
2:15pm	Discussion Q&A	
2:30pm - 3:00pm	Break	
3:00pm - 4:45pm	Software Updates	Chair: Kristi Potter
3:00pm	ParaView	Kenneth Moreland
3:15pm	VTK-m	Kenneth Moreland
3:30pm	VisIt	Eric Brugger
3:45pm	ADIOS	Dave Pugmire
4:00pm - 5:00pm	Research Talks	Chair: Sean Ziegeler
4:00pm	Parallel Probabilistic Graphical Models: Unsupervised Learning and Their Application to Analysis and Vision	Wes Bethel
4:30pm	Visualization of Cyber-Physical Power System Metrics & Adaptive Volumetric Rendering	James Money

Wednesday April 25, 2018

8:00am – 8:30am	Working Breakfast Topic: New Hardware (GPUs and displays)	Leader: Kenny Gruchalla
8:30am - 10:30am	Research Talks	Chair: Kenneth Moreland
8:30am	Recent Research at the University of Oregon	Roba Binyahib
9:00am	Visual Analytics for Scientific Data	Wei Xu
9:30am	Geocomputing and geovisualization for situational awareness and knowledge discovery	Jibonananda Sanyal
10:00am	Closing the Loop: Integrating Simulation Results and Uncertainty Back into Contextual Models	Kristi Potter
10:30am - 11:00am	Break	
11:00am - Noon	Research Talks	Chair: John Patchett
11:00am	Ascent: a fly-weight in situ visualization framework	Matthew Larsen
11:30am	SENSEI, a light weight, high performance, in situ framework	Burlen Loring
Noon - 1:00pm	Working Lunch Topic: Software Tools	Leader: David Pugmire
1:00pm - 3:30pm	Research Talks	Chair: Joseph Insley
1:00pm	Compression in VTK Data Formats	John Patchett
1:30pm	Two approaches for dynamic load balanced particle tracing: data repartitioning and constrained k-d tree decomposition	Hanqi Guo
2:00pm	Portable performance for particle advection with VTK-m	Dave Pugmire
2:30pm	Interactive In Situ Visualization for LAMMPS	Silvo Rizzi
3:00pm	VisIt + Cinema	Brad Whitlock
3:30pm – 4:00pm	Break	
4:00pm – 5:00pm	Panel	Chair: Wes Bethel
4:00pm	Panel: 10-year Prognostication and How Do We Get There?	Wes Bethel

Thursday April 26, 2018

8:00am – 8:30am	Working Breakfast Topic: Industry Trends in HPC & Vis	Leader: Kenny Gruchalla
8:30am - 9:30am	Research Talks	Chair: James Money
8:30am	TBD	Alan Scott
9:00am	TBD	Brad Carvey
9:30am - 11:00am	Industry Talks	Chair: Roberto Sisneros
9:30am	NVIDIA HPC Visualization Update	Aaron Knoll
10:00am	Ongoing developments in VTK and ParaView rendering	Cory Quammen / David DeMarle
10:30am	EnSight R19: Units, Remote Rendering and Nexus R&D	Randy Frank
11:00am - 11:30am	Break	
11:30am – 12:00pm	Discussions	Chair: Kenny Gruchalla
11:30am	DOE Early Career Development Discussion	Kristi Potter
12:00pm – 1:00pm	Working Lunch Topic: DOE/ECGF 2019 Planning and Closing Remarks	Leader: Dave Pugmire