2018 Scientific Discovery through Advanced Computing (SciDAC-4) Principal Investigator Meeting

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Hilton Washington DC/Rockville
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Poster List

All posters are in PDF format. Adobe Reader may be necessary to view these files on your computing device. If you don't have the latest version of Reader, you can download a free copy from Adobe.

2018 SciDAC-4 PI Meeting Poster List

Name	Title
Ann Almgren	FASTMath: Structured Mesh Activities (242 KB)
James Amundson Ann Almgren Warren Mori Esmond Ng Stefan Wild	The Community Project for Accelerator Science and Simulation 4: Advancing Accelerator Physics through High-performance Computing (2.53 MB)
Weiming An	The Community Project for Accelerator Science and Simulation 4: Advancing Accelerator Physics through High-performance Computing (1.82 MB)
Richard Archibald	FASTMath: Data Analytics Activities (95 KB)
Feng Bao	Stochastic optimization for quantum materials simulations (1.28 MB)
Nicola Bertelli	SciDAC Center for Fusion Relevant RF Actuators: Overview, RF Scattering from Turbulence, and Overcoming Scaling Limits for High Fidelity Predictive Simulation (14.13 MB)
Gautam Bisht	Development Plans for the Subsurface Terrestrial Dynamical Core of E3SM (4.85 MB)
Sohie Blondel Phil Roth	Xolotl: A Cluster Dynamics Code to Predict Gas Bubble Evolution in Solids (1.39 MB)
Joseph Carlson	NUCLEI (12.77 MB)
Giuseppe Cerati B. Norris	Accelerating HEP Event Reconstruction (1.79 MB)

CS Chang	Applied Mathema-cs Developments for the High-Fidelity Boundary Plasma
L. Chacon	Simula-on SciDAC Center (20 KB)
Chao Yang	FASTMath Eigensolver (2.54 MB)
Arghya Chatterjee	Bringing DCA++ (Dynamical Cluster Approximation) to HPC Leadership Class systems – Summit and beyond (2.60 MB)
Jong Youl Choi	Data Management Challenges in HBPS (1.41 MB)
Davide Curreli	PSI2 Plasma Sheath Sputtering Small (1.42 MB)
Ed D'Azevedo	A Kronecker Product Implementation of Density Matrix Renormalization Group (1.17 MB)
Ed D'Azevedo	Performance and Scalability of XGC Fusion Code on Summit (1.25 MB)
Anshu Dubey	Applications Engagement and Community Outreach (457 KB)
Howard Elman	Tokamak Disruption Simulation (19.46 MB)
Nikolai Gorelenkov	Development of Reduced models for Alfvénic modes driven fast ion relaxation (836 KB)
Hanqi Guo	In Situ Flow Analysis for MPAS-Ocean Simulations (4.24 MB)
Salman Habib	Accelerating HEP Science: Inference and Machine Learning at Extreme Scales (2.80 MB)
Ammar Hakim	Scalable, Efficient and Energy Conserving Discontinuous Galerkin Algorithms for Continuum Gyrokinetic Simulations of Turbulence in Fusion Machines (2.51 MB)
Edward Hohenstein	A Unified Formulation of Tensor Hyper Contraction Coupled Cluster Theory (1.62 MB)
Thomas Jenkins	SciDAC Center for Fusion Relevant RF Actuators: Particle-based approaches to RF induced impurity generation, and an MFEM based far-SOL transport solver (5.09 MB)
Hong-Chen Jiang	Superconductivity in the doped Hubbard and t-J models on the square lattice (791 KB)
Phil Jones	Asynchronous Many-Task Programming Models for the Earth System: Couplers and Ocean/Ice (1.35 MB)
Ilon Joseph Brian Wirth David Bernholdt	Plasma Surface Interactions SciDAC: Dynamic plasma material surface interactions at the edge of a magnetically confined fusion reactor (1.20 MB)
Scott Klasky	Scientific Data Management: I/O Libraries, coupling, knowledge mangement (2.79 MB)
TJ Lane	First Steps in Computational Photoenzyme Design (2.31 MB)
Brian Moritz	Exciton Condensation in Doped Hubbard Bilayers (987 KB)
Dmitry Morozov	RAPIDS Data Understanding (39.66 MB)
Todd Munson	FASTMath: Numerical Optimization Activities (810 KB)
Habib Najm	FASTMath: UQ Activities (3.08 MB)
Habib Najm David Andersson Tiernan Casey	UQ framework for ssion gas behavior in UO2 nuclear fuel (1.25 MB)

Christopher Matthews	
Sergevy Panitkin	PanDA WMS for Lattice QCD Computations (1.28 MB)
Jeff Parker	Bringing Global Gyrokinetic Turbulence Simulationsto the Transport Timescale using a Multiscale Approach (824 KB)
Jin Park	Advanced Tokamak Modeling Environment for Fusion Plasmas: Physics (5.92 MB)
Robert Parrish	Lightspeed: A domain-specific computational environment for electronic structure and quantum dynamics (914 KB)
Maria Piarulli	The basic model of nuclear theory: from atomic nuclei to infinite matter (1.88 MB)
Stephen Price	Probabilistic Sea-Level Projections from Ice Sheet and Earth System Models (1.96 MB)
Daniel Riccuito	Optimization of sensor networks for climate models: Overview, progress and future plans (3.80 MB)
Saba Sehrish	HPC and data management for HEP (4.85 MB)
Mark Shephard	FASTMath: Unstructured Mesh Activities (13.27 MB)
Carl Sovinec	Computational Aspects of Modeling Tokamak Disruptions with the NIMROD Code (4.40 MB)
DA Spong	Long-time scale simulation and V&V components of the ISEP (Integrated Simulation of Energetic Particles in Burning Plasmas) project (6.66 MB)
Blas Uberuaga	TAMMBER: Temperature Accelerated construction of Markov Models with Baysian Estimation of Rates (11.39 MB)
Blas Uberuaga	TAMMBER: Applications (6.48 MB)
Xianzhu Tang	Tokamak Disruption Simulation (TDS) Center: Charting a Path for Disruption Mitigation using Large-Scale Predictive Simulations (2.47 MB)
Jeffrey Vetter	RAPIDS: Platform Readiness (933 KB)
Hui Wan	Assessing And Improving The Numerical Solution Of Atmospheric Physics In E3SM (1.37 MB)
Carol Woodward	FASTMath: Time Integration Activities (1.11 MB)
Takanobu Yamaguchi	Adaptive vertical grid enhancement for E3SM (1.51 MB)
Ulrike Yang	FASTMath: Linear Solver Activities (1.03 MB)
Hong Zhang	Stability analysis of numerical interface conditions in coupled ocean-atmosphere models (1.30 MB)