2017 ASCR Applied Mathematics PI Meeting: Poster Assignments
(ordered by poster number)

Poster Blitz 1: Monday, Sept 11, 11:00-11:45 am: Posters in 1A & 1B
Session 1A: Monday, Sept 11, 11:45 am - 12:30 pm
Session 1B: Monday, Sept 11, 3:00 - 3:45 pm

Poster Blitz 2: Tuesday, Sept 12, 11:00-11:45 am: Posters in 2A & 2B
Session 2A: Tuesday, Sept 12, 11:45 am - 12:30 pm
Session 2B: Tuesday, Sept 12, 3:00 - 3:45 pm

Poster Number	Poster Session	Corresponding Author's First Name	Corresponding Author's Last Name	Title
1	1A	Edmond	Chow	Asynchronous Iterative Solvers for Extreme-Scale Computing
2	1B	Andrei	Draganescu	Efficient multigrid preconditioners for optimal control problems constrained by time dependent PDEs
3	2A	Howard	Elman	Collocation Methods fo rStability Analysis of Dynamical Systems
4	1A	Jeffrey	Banks	A Stable Partitioned FSI Algorithm for Rigid Bodies and Incompressible Flow
5	1A	Chi-Wang	Shu	IMEX time marching for discontinuous Galerkin Methods
6	1A	Ramakrishna	Tipireddy	Domain decomposition with basis adaptation for high-dimensional stochastic systems
7	2A	Miroslav	Stoyanov	Tools and Software Developed under EQUINOX
8	2A	Hoang	Tran	Theoretical and Computational Advances of EQUINOX and Impacts on DOE Applications
9	1A	James	Levitt	Geometry-Oblivious FMM for Compressing Dense SPD Matrices
10	1B	Jaideep	Ray	Scalable Adaptive Chain Ensemble Sampling
11	1B	Petr	Plechac	Information-theoretic methods for uncertainty quantification in stochastic systems.
12	2B	Yalchin	Efendiev	Local Multiscale Model Reduction and Its Applications
13	2B	Alireza	Doostan	A Bi-Fidelity, Low-Rank Approximation Technique for Uncertainty Quantification
14	1A	Bert	Debusschere	Probabilistic Approach Extreme Scale Simulations
15	2B	Feng	Bao	Hierarchical Optimization for Inelastic Neutron Scattering
16	1B	Clayton	Webster	Sparse polynomial approximation via compressed sensing of high dimensional functions
17	2A	Danial	Faghihi	DiaMonD_A Bayesian Framework for Adaptive Model
18	2A	Youssef	Marzouk	DiaMonD: Transport Maps for Bayesian Computation
19	2A	Robert	Moser	Model Inadequacy Representations for Complex Physical Systems
20	2A	Velimir	Vesselinov	Optimal experimental design and model analyses for subsurface hydrogeologic problems
21	2A	Karen	Willcox	DiaMonD_Multifidelity Methods for Large-Scale Inference
22	1A	Paul	Atzberger	Stochastic Methods for Multiscale Modeling of Soft Materials
23	1A	George	Karniadakis	Mesoscopic Methods and Multiscale Modeling for Soft Matter
24	1A	Panos	Stinis	Mori-Zwanzig Model Reduction and Sampling Methods In Molecular Dynamics
25	1A	Nathan	Trask	Recent progress towards meshless mimetic methods
26	1A	Xiu	Yang	Stochasticity, Uncertainty and Calibration in Multiscale Modeling
27	1A	Xiu	Yang	Tensor-based Data-driven Method for Scientific Computing
28	1B	David	Barajas-Solano	Model reduction of power grid systems in phase space and random space
29	1B	James	Luedtke	Recent Advances In Multi Stage and Integer Stochastic Programming
30	1B	Cosmin	Petra	Scalable solvers and modeling frameworks for the optimization of complex energy systems under uncertainty
31	1B	Charlotte	Haley	Spectral Analysis of Spatiotemporal Data

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32	1B	Sven	Leyffer	Optimal Control of Gas Networks
33	1B	Barry	Lee	Multigrid Methodology for Stable Model Reduction of Power Grid Networks
34	2A	Sven	Leyffer	Nonlinear Robust Optimization
35	2A	Mihai	Anitescu	Temporal Decomposition for Dynamic Optimization
36	1A	Kibaek	Kim	Scalable Decomposition Methods for Structured Mixed-Integer Programs
37	1A	Todd	Munson	Phase Retrieval Using Numerical Optimization
38	2B	Julie	Bessac	Gaussian processes for prediction and simulation of complex spatio-temporal data
39	2B	Aydin	Buluc	Energy-efficient Data and Graph Algorithms Research
40	2B	Wei	Zhu	Low Dimensional Manifold Model in Sparse Data Interpolation
41	2A	Matthew	Zahr	Adjoint-Based Optimization, Uncertainty Quantification, and Data Assimilation of Multiphysics Systems using High-Order Numerical Discretizations
42	2A	Barnabas	Poczos	Multi-Fidelity Approximations in Scientific Problems
43	2A	Matt	Menickelly	Robust Derivative-Free Optimization
44	1B	Paul	Hovland	Automatic Differentiation for Data Analysis and Machine Learning
45	1B	Miranda	Holmes-Cerfon	A geometrical approach to colloidal energy landscapes and kinetics
46	1B	Paul	Constantine	Active Subspaces: Emerging Ideas for Dimension Reduction in Parameter Studies
47	1A	Grey	Ballard	Efficient Large-Scale Tensor Decompositions
48	1A	Ariful	Azad	Productive and extreme-scale graph computation enabled by GraphBLAS
49	1A	Rick	Archibald	Accurate Quantified Mathematical Methods for Neutron and Experimental Sciences – ACUMEN
50	2A	Scott	Mitchell	Unstructured Primal-Dual Mesh Improvement and Generation
51	2A	Juliane	Mueller	Optimization of computationally expensive black-box problems with hidden constraints
52	1B	Frank E.	Curtis	Fast, Dynamic, and Scalable Algorithms for Large-Scale Nonconvex Optimization
53	1A	Jorge	Nocedal	Optimization Methods with Good Learning Capabilities
54	2B	Tim	Wildey	A Consistent Bayesian Approach for Stochastic Inverse Problems
55	1A	Mikhail	Shashkov	Mimetic Methods For Partial Differential Equations
55	2B	Michael	Trogdon	High Performance Algorithms For Discreste Stochastic Simulation
56	1B	John	Shadid	Towards Scalable Fully-coupled Newton-Krylov-AMG Solution Methods for Implicit Continuum Plasma Physics Models
57	2A	Luis	Chacon	Moment-accelerated multiscale particle-in-cell algorithms for kinetic simulation of plasmas in multiple dimensions
59	2A	Sarah	Osborn	Scalable Hierarchical Sampling of Gaussian Random Fields for Large-Scale Multilevel Monte Carlo Simulations
60	1A	Phillip	Colella	High Order Structured Grid and Particle Methods
61	2B	Edward	Phillips	Preconditioning Strategies for Physics-Conforming Implicit Electromagnetics and Plasma Simulations

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62	1A	Russel	Caflisch	Kinetic Simulation of Non-Equilibrium Gases and Plasmas
63	2B	Guglielmo	Scovazzi	The Shifted Boundary Method: A new approach to embedded domain computations
64	2A	Alex	Pothen	Parallel Graph Algorithms through Approximation
65	1B	Tzanio	Kolev	ETHOS: High-Order Mesh Optimization
66	2B	Alexandre	Tartakovsky	Dimension reduction methods for multiscale nonlinear phenomena
67	2B	Cory	Hauck	A Fast Solver for Implicit Integration of the Vlasov-Poisson System in the Eulerian Framework
68	1B	Pavel	Bochev	Optimization-Based Property Preserving Methods or Going Boldly Beyond Compatible Descretizations
69	2B	Evgeny	Kikinzon	X-MOF interface reconstruction method: enabling technology for accurate multi-material diffusion simulations.
70	1B	Lin	Mu	Polygonal Finite Element Methods and Discontinuous Galerkin Approximations
71	2A	Erik	Boman	Asynchronous domain decomposition and an asynchronous parallel software framework
72	2A	David	Gleich	Erasure coded computations
73	2A	Milo	Dorr	Assessing the Discretization Error in a Gyrokinetic Edge Plasma Model
74	2B	Alex	Gorodetsky	Learning separated functional representations for high-dimensional models
75	2B	Michael	Minion	Space-time Spectral Accuracy for the Navier-Stokes Equations in Complex Geometries
76	1B	Robert	Falgout	Parallel Multigrid-in-Time for Highly Concurrent Architectures
77	1B	Francois	Hamon	Multilevel Parallel-In-Time Integration
78	1A	Alexandre	Chorin	Data-based Stochastic parametrization with applications
79	1A	Jeffrey	Donatelli	New Mathematics for Next-Generation X-ray Imaging
80	1B	Alexander	Hexemer	Xi-cam: A platform for CAMERA Algorithms
81	1B	Lin	Lin	Numerical Methods for Ground and Excited State Electronic Structure Calculations
82	2A	Robert	Saye	Fluids, Structures and Interfaces Across Multiple Scales
83	2A	James	Sethian	CAMERA: The Center for Advanced Mathematics for Energy Research Applications
84	2A	Mitchell	Luskin	Diffusive Molecular Dynamice: Mathematical Foundations and Improved Algorithms
85	2B	Ming Tse	Laiu	Positivity Limiters for Spectral Approximations of Linear Kinetic Transport Equations
86	2B	Chak	Lee	Accurate Spectral Coarsening of Mixed Finite Element and Finite Volume Schemes
87	1B	Mary	Wheeler	Numerical Study of Gas Mobility Control Techniques during CO2 Sequestration in Cranfield
88	2B	Haim	Waisman	An overlapping Domain Decomposition preconditioning method for monolithic solution of dynamic fracture problems
89	2B	Krzysztof	Fidkowski	New Directions in Solution-Based Adaptive Simulations
90	2B	Jed	Brown	Practical and efficient time integration and Kronecker product solvers
91	2A	Emil	Constantinescu	Quantifying Stuctural Errors in Predictive Scientific Simulations
92	1A	Matthew	Knepley	Mesh-Solver Coupling in PETSc

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93	1B	Barry	Smith	Efficient Error Estimation and Propagation In Complex ODE/DAE/PDE Simulations
94	2B	Paul	Fischer	High-Order Methods for High-Performance Multiphysics Simulations
95	2B	Jonathan	Weare	Ensemble preconditioning schemes for Markov chain Monte Carlo simulation
96	1A	Ann	Almgren	A Hybrid Adaptive Low-Mach-Number / Compressible Method for Solving the Navier-Stokes Equations
97	1B	John	Bell	Low Mach Number Fluctuating Hydrodynamics for Electrolytes
98	2A	Marc	Day	Combining Data and Simulation to Predict the Behavior of Complex Systems
99	1A	Andrew	Nonaka	A conservative, thermodynamically consistent numerical approach for low Mach number combustion
100	2B	Andrew	Nonaka	Stochastic simulation of reaction-diffusion systems: A fluctuating hydrodynamics approach
101	2B	Raymond	Tuminaro	Leveraging Problem Structure within Multilevel Solvers to Improve Robustness and Performance on Advanced Architectures
102	2B	Ivan	Yotov	Modeling of fluid flow through deformable fractured porous media