

SPARSE DAYS 2025, June 2-3

Monday, June 2

09:30	WELCOME COFFEE	
09:50	WELCOME MESSAGE	
10:00	SESSION 1	Chairperson: Iain DUFF
10:00	Rob BISSELING	Sparse matrix computations for verifying the binary Goldbach conjecture
10:30	Sandeep KORANNE	Sparse Matrix Representations Using Minimal Perfect Hashing
11:00	Antoine GICQUEL	A composable abstraction of hierarchical methods for matrix-vector product acceleration
11:30	Esmond NG	Recent Results on Improving Performance of Sparse Cholesky Factorization by Reordering Columns within Supernodes
12:00	LUNCH BREAK	
14:00	SESSION 2	Chairperson: Daniel RUIZ
14:00	Sherry LI	Batched Sparse Direct Solver Design and Evaluation in SuperLU DIST
14:30	Antoine JEGO	BLAS-based Block Memory Accessors with Applications to Mixed-Precision Sparse Direct Solvers
15:00	George DELIC	Accelerating Sparse Matrix Algorithms in Global Climate and Air Quality Models
15:30	Weifeng LIU	Scaling Up Sparse Direct Solvers on GPU Clusters
16:00	COFFEE BREAK	
16:30	SESSION 3	Chairperson: Ulrich RUEDE
16:30	Petr Vacek	Mixed precision multigrid V-cycle method
17:00	Sai Aakash DASARI	Extrapolated Geometric Multigrid Solver for Poisson-like Equations on Tokamak Geometries
17:30	Samuel DUARTE DOS SANTOS	Learning Convolutional Smoothing Operators for Multigrid Solvers of the 2D Poisson Equation
18:00	Jimmie ADRIAZOLA	Computer Assisted Discovery of Integrability via SILO Sparse Identification of Lax Operators
20:00	GALA DINNER	

Tuesday, June 3

09:30	WELCOME COFFEE	
10:00	SESSION 4	Chairperson: Alfredo BUTTARI
10:00	Theo MARY	Mixed precision strategies for preconditioned GMRES
10:30	Matthieu ROBEYNS	Mixed precision randomized low-rank approximation with GPU tensor cores
11:00	Karmijn HOOVELD	A survey on randomized low-rank approximation algorithms
11:30	Tom CARUSO	Mixed Precision in Domain Decomposition Preconditioner Perturbation Analysis and Practical Guidelines
12:00	Miroslav TUMA	Solving sparse linear least-squares using low precision incomplete Cholesky preconditioning
12:30	LUNCH BREAK	
14:00	SESSION 5	Chairperson: Carola KRUSE
14:00	Joost ROMMES	Accelerated sparse linear algebra and related developments for GPU and hybrid CPU+GPU computing
14:30	Yu-Hsiang TSAI	Recent Advancements in the Sparse Linear Algebra Library Ginkgo
15:00	Stojche NAKOV	Scalable Domain Decomposition Methods for Large Sparse Linear Systems on Modern Architectures
15:30	COFFEE BREAK	
16:00	SESSION 6	Chairperson: Selime GUROL
16:00	Andrew WATHEN	Preconditioning and iteration for indefinite linear systems
16:30	Yongseok JANG	Combining mixed precision with deflation and augmentation for accelerating GMRES
17:00	Alexandre MALHÉNE	Practical backward error based stopping criteria for GMRES
17:30	Faris ATTALLAH	Accelerating Power Flow Solvers GPBiCG and BiCGSTAB in Newton-Raphson Methods for Large-Scale Systems
18:00	CLOSING MESSAGE	