



HOUSEHOLDER SYMPOSIUM XX
PROGRAM

MONDAY 19 JUNE

- 7–8:30am breakfast buffet in LATHAM CDEF
- 8:30am opening remarks (LATHAM AB)
- 8:45–9:50am plenary talks [chair: Jim Nagy]
- 8:45am Rich Lehoucq
A computational spectral graph theory tutorial
- 9:20am Chen Greif
Recent advances in the solution of saddle-point systems
- 9:50am coffee
- 10:30am Parallel Talks #1 (20 minute talks, 5 minutes for transition)
- Track 1a: Algorithms for Data and Low-Rank Structure (LATHAM AB)
Ipsen, Damle, M. Chung, Kontopoulou, Zheng
- Track 1b: High Performance Computing (SOLITUDE)
Li, Bientinesi, Demmel, Solomonik, Devarakonda
- Track 1c: Eigenvalue Problems and Operator Theory (CASCADES)
Serra-Capizzano, Shao, Mazza, Trefethen
- 12:30pm lunch buffet in LATHAM CDEF
- 2:00–3:40pm plenary talks [chair: David Bindel]
- 2:00pm Silvia Gazzola
Enforcing nonnegativity by flexible Krylov subspaces
- 2:35pm Erin Carson
The Behavior of Synchronization-Reducing Variants of the Conjugate Gradient Method in Finite Precision
- 3:10pm Edmond Chow
Iterative Construction and Updating of Incomplete LU Factorizations
- 3:40pm coffee
- 4:15pm Parallel Talks #2 (20 minute talks, 5 minutes for transition)
- Track 2a: Ill-Posed Problems (LATHAM AB)
Scott, Buccini, J. Chung, Hochstenbach
- Track 2b: Pseudospectra and Distance to Instability (SOLITUDE)
Elman, Mitchell, Lu
- Track 2c: Matrix Polynomials (CASCADES)
Mackey, Truhar, Del Corso, Pérez
- 6:30pm dinner buffet in LATHAM CDEF
- 8:00pm Poster Blitz #1 in LATHAM AB
- 9–10:30pm Poster session #1 in DUCK POND and SMITHFIELD

Plenary talks are 30 minutes long (including questions), with 5 minutes for transition between talks.
Parallel talks are 20 minutes long (including questions), with 5 minutes for transition between talks.

TUESDAY 20 JUNE

- 7–8:30am breakfast buffet in LATHAM CDEF
- 8:30–10:10am plenary talks [chair: Jim Demmel]
- 8:30am Bo Kågström
NLAFET: parallel numerical linear algebra for future extreme scale systems
- 9:05am Alex Townsend
On the singular values of matrices with displacement structure
- 9:40am Anne Greenbaum
Optimal Blaschke products
- 10:10am coffee
- 10:30am Parallel Talks #3 (20 minute talks, 5 minutes for transition)
- Track 3a: Preconditioning (LATHAM AB)
Szyld, Frommer, Vuik, Sifuentes, Ruiz
- Track 3b: Model Reduction I (SOLITUDE)
Drmač, Peherstorfer, Gugercin, Zaslavsky, Zimmerling
- Track 3c: Dense Eigenvalue Algorithms and Subspace Geometry (CASCADES)
Mastronardi, Watkins, Edelman, Sutton
- 12:30pm lunch buffet in LATHAM CDEF
- 2:00–3:40pm plenary talks [chair: Françoise Tisseur]
- 2:00pm Leonardo Robol
Fast and backward stable computation of the eigenvalues of matrix polynomials
- 2:35pm Andrii Dmytryshyn
Stratification of matrix polynomials
- 3:10pm Yuji Nakatsukasa
Global optimization via eigenvalues
- 3:40pm coffee
- 4:15pm Parallel Talks #4 (20 minute talks, 5 minutes for transition)
- Track 4a: Functions of Matrices (LATHAM AB)
Pozza, Cardoso, Schweitzer, Overton
- Track 4b: Incomplete LU Factorizations (SOLITUDE)
Tisseur, Tũma, Ng
- Track 4c: Symplectic Eigenvalue Problems (CASCADES)
Moro, Sosa, Rozložník
- 6:30pm dinner buffet in LATHAM CDEF
- 8:00pm Poster Blitz #2 in LATHAM AB
- 9–10:30pm Poster session #2 in DUCK POND and SMITHFIELD

Plenary talks are 30 minutes long (including questions), with 5 minutes for transition between talks. Parallel talks are 20 minutes long (including questions), with 5 minutes for transition between talks.

WEDNESDAY 21 JUNE

- 7–8:30am breakfast buffet in LATHAM CDEF
- 8:30–10:10am plenary talks [chair: Heike Fassbender]
- 8:30am Karl Meerbergen
Can we solve nonlinear eigenvalue problems?
- 9:05am Thanos Antoulas
Data-driven optimization of large-scale systems
- 9:40am Matthias Bolten
Numerical linear algebra aspects of parallelization in time
- 10:10am coffee
- 10:30–12:10am plenary talks [chair: Alan Edelman]
- 10:30am Vanni Noferini
Matrix polynomials meet complex network analysis: The deformed graph Laplacian and its applications
- 11:05am Francesca Arrigo
Generalized matrix functions: theoretical and computational aspects
- 11:40am Nicolas Gillis
Exact and heuristic algorithms for semi-nonnegative matrix factorizations
- 12:10pm pick up boxed lunches outside LATHAM AB
- 12:30pm departure for excursions
- Excursion 1: Hike at Cascade Falls, followed by local beer tasting at Hahn Horticulture Gardens (Virginia Tech)
- Excursion 2: Wine tasting at Valhalla Vineyards in Roanoke, followed by a short hike at Falls Ridge Preserve
- Excursion 3: Vigorous hike at Dragon’s Tooth
- 7:00pm conference banquet in LATHAM CDEF
after-dinner speaker: Cleve Moler

Plenary talks are 30 minutes long (including questions), with 5 minutes for transition between talks.

THURSDAY 22 JUNE

- 7–8:45am breakfast buffet in LATHAM CDEF
- 8:45–9:15am plenary talk [chair: Andy Wathen]
- 8:45am Bart Vandereycken
Subspace methods for computing the Crawford number and the real pseudospectral abscissa
- 9:20am Householder Prize lecture [chair: Howard Elman]
- 9:50am coffee
- 10:30am Parallel Talks #5 (20 minute talks, 5 minutes for transition)
- Track 5a: Iterative Methods for Eigenvalues (LATHAM AB)
Knyazev, Międlar, Romero, Paige, Xia
- Track 5b: Model Reduction II (SOLITUDE)
Kürschner, Mengi, Ahuja, Remis, Druskin
- Track 5c: Tensors (CASCADES)
Kazeev, Qi, Friedland, Ye, Benson
- 12:30pm lunch buffet in LATHAM CDEF
- 2:00–3:40pm plenary talks [chair: Zlatko Drmač]
- 2:00pm Laura Grigori
Low rank approximation of a sparse matrix based on LU factorization with column and row tournament pivoting
- 2:35pm Nick Vannieuwenhoven
Riemannian optimization and a geometric condition number for tensor rank decompositions
- 3:10pm Federico Poloni
Rigorous invariant measure computations using a two-grid strategy to approximate matrix norms
- 3:40pm coffee
- 4:15pm Parallel Talks #6 (20 minute talks, 5 minutes for transition)
- Track 6a: Nonlinear Eigenvalue Problems (LATHAM AB)
Dopico, Jarlebring, Plestenjak
- Track 6b: Large Scale Linear Systems (SOLITUDE)
Duff, Boman, Tichý
- Track 6c: Optimization (CASCADES)
Gürbüzbalaban, Marcia, Voigt
- 6:30pm dinner buffet in LATHAM CDEF
- 7:15pm live music, followed by dancing in LATHAM CDEF

Plenary talks are 30 minutes long (including questions), with 5 minutes for transition between talks.
Parallel talks are 20 minutes long (including questions), with 5 minutes for transition between talks.

FRIDAY 23 JUNE

- 7–8:30am breakfast buffet in LATHAM CDEF
- 8:30–10:10am plenary talks [chair: Ilse Ipsen]
- 8:30am Jennifer Pestana
Preconditioned MINRES for Nonsymmetric Toeplitz and block Toeplitz matrices
- 9:05am John Pearson
Fast interior point solvers and preconditioning for PDE-constrained optimization
- 9:40am Paul Van Dooren (ILAS speaker)
Dual minimal bases of polynomial matrices and applications
- 10:10am coffee
- 10:30–11:35am plenary talks [chair: Andy Wathen]
- 10:30am Zdenek Strakoš
Sparsity, discretization, preconditioning, and adaptivity in linear solvers
- 11:05am Michael Saunders
Error bounds for CG via SYMMLQ
- 11:35pm buffet lunch in LATHAM CDEF (boxed lunches available for those departing early)
departure

Plenary talks are 30 minutes long (including questions), with 5 minutes for transition between talks.

Parallel Talks #1 (Monday 10:30am–12:30pm)

Parallel Track #1a: Algorithms for Data and Low-Rank Structure (Room: Latham)

Chair: Serkan Gugercin

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| 10:30am | Ilse Ipsen | <i>Randomized Computation of Active Subspaces</i> |
| 10:55am | Anil Damle | <i>Robust and Efficient Multi-Way Spectral Clustering via QR Factorizations with Column Pivoting</i> |
| 11:20am | Matthias Chung | <i>Optimal Regularized Low-Rank Inverse Matrix Approximation</i> |
| 11:45am | Eugenia Kontopoulou | <i>Structural Convergence Results for Low-Rank Approximations from Block Krylov Spaces</i> |
| 12:10pm | Ning Zheng | <i>An Alternating Modulus Nonnegative Least Squares Method for Nonnegative Matrix Factorization</i> |

Parallel Talks #1b: High Performance Computing (Room: Solitude)

Chair: Eric de Sturler

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|---------|--------------------|---|
| 10:30am | Xiaoye Li | <i>Sparse Factorization Methods for Indefinite Systems Towards Exascale</i> |
| 10:55am | Paolo Bientinesi | <i>The Linear Algebra Mapping Problem (LAMP)</i> |
| 11:20am | James Demmel | <i>Communication-Avoiding Algorithms, and the New BLAS</i> |
| 11:45am | Edgar Solomonik | <i>A Communication-Avoiding Parallel Algorithm for the Symmetric Eigenvalue Problem</i> |
| 12:10pm | Aditya Devarakonda | <i>Communication-Avoiding Primal and Dual Block Coordinate Descent Methods</i> |

Parallel Talks #1c: Eigenvalue Problems and Operator Theory (Room: Cascades)

Chair: Chris Beattie

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|---------|-------------------------|---|
| 10:30am | Stefano Serra-Capizzano | <i>Eigenvalues of Banded Symmetric Toeplitz Matrices are Known Almost in Close Form: Numerics and Algorithmic Proposals</i> |
| 10:55am | Meiyue Shao | <i>Recent Progress on the Bethe–Salpeter Eigenvalue Problem</i> |
| 11:20am | Mariarosa Mazza | <i>Spectral Analysis and Numerical Methods for Space-Fractional Diffusion Equations</i> |
| 11:45am | Nick Trefethen | <i>Block Operators and Spectral Discretizations</i> |

Parallel Talks #2 (Monday 4:15–5:50pm)

Parallel Track #2a: Ill-Posed Problems (Room: Latham)

Chair: Eric de Sturler

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| 4:15pm | Jennifer Scott | <i>The Challenge of Rank-Deficient Sparse Linear Least-Squares Problems</i> |
| 4:40pm | Alessandro Buccini | <i>Non-Stationary Regularizing Preconditioners for Ill-Posed Problems</i> |
| 5:05pm | Julianne Chung | <i>Hybrid Iterative Methods for Large-Scale Bayesian Inverse Problems</i> |
| 5:30pm | Michiel Hochstenbach | <i>Multidirectional Subspace Expansion for Eigenvalue Problems and Inverse Problems</i> |

Parallel Track #2b: Pseudospectra and Distance to Instability (Room: Solitude)

Chair: Mark Embree

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| 4:15pm | Howard Elman | <i>Collocation Methods for Exploring Perturbations in Linear Stability Analysis</i> |
| 4:40pm | Tim Mitchell | <i>A Fast and Scalable Method for Approximating the Real Structured Stability Radius with Frobenius-Norm Bounded Perturbations</i> |
| 5:05pm | Ding Lu | <i>A Criss-Cross Type Algorithm for Computing the Real Pseudospectral Abscissa</i> |

Parallel Track #2c: Matrix Polynomials (Room: Cascades)

Chair: Serkan Gugercin

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| 4:15pm | Steven Mackey | <i>Product Realizations for Matrix Polynomials</i> |
| 4:40pm | Ninoslav Truhar | <i>Perturbation Bounds for the Quadratic Eigenvalue Problem</i> |
| 5:05pm | Gianna Del Corso | <i>Combinatorics of Fiedler Pencils with Repetitions</i> |
| 5:30pm | Javier Pérez | <i>Structured and Global Backward Error Analysis of Odd-Degree Structured Polynomial Eigenvalue Problems Solved via Structure-Preserving Linearizations</i> |

Parallel Talks #3 (Tuesday 10:30am–12:30pm)

Parallel Track #3a: Preconditioning (Room: Latham)

Chair: Eric de Sturler

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| 10:30am | Daniel Szyld | <i>Asynchronous Optimized Schwarz Methods: Convergence Theory and Experiments</i> |
| 10:55am | Andreas Frommer | <i>Spectral Relations Between Overlap Operators and Their Kernels and Their Use in Designing Preconditioners</i> |
| 11:20am | Kees Vuik | <i>The Adapted Augmented Lagrangian Preconditioner for the Turbulent Incompressible Navier-Stokes Equations Discretized by a Finite Volume Method</i> |
| 11:45am | Josef Sifuentes | <i>Spectral Properties of Approximately Preconditioned Saddle Point Problems and GMRES Convergence Bounds</i> |
| 12:10pm | Daniel Ruiz | <i>A Refined Lower Bound on the Positive Eigenvalues of Saddle Point Matrices that Incorporates Specific Information from the Interactions Between the Blocks</i> |

Parallel Track #3b: Model Reduction I (Room: Solitude)

Chair: Chris Beattie

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| 10:30am | Zlatko Drmač | <i>New Contributions to the Theory and Practice of the Discrete Empirical Interpolation Method</i> |
| 10:55am | Benjamin Peherstorfer | <i>Optimal Low-Rank Updates for Online Adaptive Model Reduction with the Discrete Empirical Interpolation Method</i> |
| 11:20am | Serkan Gugercin | <i>Sylvester Equations and Tensor Algebra in \mathcal{H}_2-Quasi-Optimal Model Order Reduction for Quadratic-Bilinear Control Systems</i> |
| 11:45am | Mikhail Zaslavsky | <i>Algebraic Sparse Reduced Order Multi-Scale Method for Large Dynamical Systems</i> |
| 12:10pm | Jörn Zimmerling | <i>Phase-Preconditioned Rational Krylov Subspaces for Wave Simulation</i> |

Parallel Track #3c: Dense Eigenvalue Algorithms and Subspace Geometry (Room: Cascades)

Chair: Mark Embree

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| 10:30am | Nicola Mastronardi | <i>Revisiting the Perfect Shift Strategy in the Implicitly Shifted QR Algorithm</i> |
| 10:55am | David Watkins | <i>Francis's Algorithm as a Core-Chasing Algorithm</i> |
| 11:20am | Alan Edelman | <i>Matrix Trigonometry, or, Where are the Ellipses?</i> |
| 11:45am | Brian Sutton | <i>On the Cut Locus of a Flag Manifold</i> |

Parallel Talks #4 (Tuesday 4:15–5:50pm)

Parallel Track #4a: Functions of Matrices (Room: Latham)

Chair: Chris Beattie

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| 4:15pm | Stefano Pozza | <i>Decay Bounds for Functions of Banded Non-Hermitian Matrices</i> |
| 4:40pm | João Cardoso | <i>Matrix Arithmetic-Geometric Mean and the Computation of the Logarithm</i> |
| 5:05pm | Marcel Schweitzer | <i>Computing Low-Rank Approximations of the Fréchet Derivative of a Matrix Function by Two-Sided and Block Krylov Subspace Methods</i> |
| 5:30pm | Michael Overton | <i>Numerical Investigation of Crouzeix's Conjecture</i> |

Parallel Track #4b: Incomplete LU Factorizations (Room: Solitude)

Chair: Julianne Chung

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| 4:15pm | Françoise Tisseur | <i>Incomplete LU Preconditioner Based on Max-Plus Approximation of LU Factorization</i> |
| 4:40pm | Miroslav Tůma | <i>Towards Data-Sparse Incomplete Factorizations</i> |
| 5:05pm | Esmond Ng | <i>Enhancing Performance of Sparse Matrix Factorizations via Ordering Refinements</i> |

Parallel Track #4c: Symplectic Eigenvalue Problems (Room: Cascades)

Chair: Mark Embree

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| 4:15pm | Julio Moro | <i>Asymptotic Expansions for Eigenvalues of Multiplicatively Perturbed Matrices</i> |
| 4:40pm | Fredy Sosa | <i>Structured Multiplicative Perturbation of Eigenvalues of Symplectic Matrices</i> |
| 5:05pm | Miro Rozložník | <i>On the Conditioning of Factors in the SR Decomposition</i> |

Parallel Talks #5 (Thursday 10:30am–12:30pm)

Parallel Track #5a: Iterative Methods for Eigenvalues (Room: Latham)

Chair: Mark Embree

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| 10:30am | Andrew Knyazev | <i>Recent Implementations, Applications, and Extensions of the Locally Optimal Block Preconditioned Conjugate Gradient Method (LOBPCG)</i> |
| 10:55am | Agnieszka Międlar | <i>Super-Converging Ritz Values via p-Hierarchical Inverse Iteration</i> |
| 11:20am | Eloy Romero | <i>Combining Refined and Standard Rayleigh-Ritz for Interior Hermitian Eigenvalue Problems</i> |
| 11:45am | Chris Paige | <i>Loss of Orthogonality, and Accuracy of the Finite Precision Lanczos Process and Conjugate Gradients</i> |
| 12:10pm | Jianlin Xia | <i>Fast and Superfast Structured Eigenvalue Solutions and Accuracy Analysis</i> |

Parallel Track #5b: Model Reduction II (Room: Solitude)

Chair: Serkan Gugercin

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| 10:30am | Patrick Kürschner | <i>Numerical Computation of Low-Rank Factors of Time- and Frequency-Limited Gramians</i> |
| 10:55am | Emre Mengi | <i>A Subspace Framework for Large-Scale H_∞ Norm Computation</i> |
| 11:20am | Kapil Ahuja | <i>Preconditioned Iterative Solves in Model Reduction of Second Order Linear Dynamical Systems</i> |
| 11:45am | Rob Remis | <i>Stability-Corrected Wave Functions and Structure-Preserving Rational Krylov Methods for Large-Scale Wavefield Simulations on Open Domains</i> |
| 12:10pm | Vladimir Druskin | <i>Direct Solution of Inverse Hyperbolic Problems via Data-Driven ROMs</i> |

Parallel Track #5c: Tensors (Room: Cascades)

Chair: Matthias Chung

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| 10:30am | Vladimir Kazeev | <i>Tensor-Structured Multilevel Function Approximation: Sharper Bounds for Polynomial and Piecewise-Analytic Functions</i> |
| 10:55am | Yang Qi | <i>Nonnegative Tensor Rank</i> |
| 11:20am | Shmuel Friedland | <i>Spectral and Nuclear Norms of Higher-Order Tensors</i> |
| 11:45am | Ke Ye | <i>Fast Structured Matrix Computations: Tensor Rank and Cohn–Umans Method</i> |
| 12:10pm | Austin Benson | <i>Spacey Random Walks</i> |

Parallel Talks #6 (Thursday 4:15–5:25pm)

Parallel Track #6a: Nonlinear Eigenvalue Problems (Room: Latham)

Chair: Serkan Gugercin

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| 4:15pm | Froilán Dopico | <i>Strong Linearizations of Rational Matrices: Definition, Explicit Constructions, and Associated Recovery Procedures</i> |
| 4:40pm | Elias Jarlebring | <i>The Infinite Bi-Lanczos Method for Nonlinear Eigenvalue Problems</i> |
| 5:05pm | Bor Plestenjak | <i>Subspace Methods for Multiparameter Eigenvalue Problems with Applications to Separable Boundary Value Problems</i> |

Parallel Track #6b: Large Scale Linear Systems (Room: Solitude)

Chair: Julianne Chung

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| 4:15pm | Iain Duff | <i>New Developments in the Solution of Large Sparse Unsymmetric Systems</i> |
| 4:40pm | Erik Boman | <i>A Hierarchical Low-rank Solver for Sparse Linear Systems</i> |
| 5:05pm | Petr Tichý | <i>Towards Practical Estimation of the A-norm of the Error in CG</i> |

Parallel Track #6c: Optimization (Room: Cascades)

Chair: Matthias Chung

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| 4:15pm | Mert Gürbüzbalaban | <i>The Role of Without-Replacement Sampling in Least Square Problems and Additive Convex Optimization: New Results and Algorithms</i> |
| 4:40pm | Roummel Marcia | <i>Compact Representation of Quasi-Newton Update Matrices</i> |
| 5:05pm | Matthias Voigt | <i>Linear-Quadratic Optimal Control of Differential-Algebraic Equations</i> |

Monday: Poster Blitz #1 (8–9pm), Poster Session #1 (9–10:30pm)

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|-------------------------|---|-----------|------------|
| Kensuke Aishima | <i>A Quadratically Convergent Algorithm Based on Matrix Equations for Inverse Eigenvalue Problems</i> | poster 9 | DUCK POND |
| Haim Avron | <i>Revisiting Asynchronous Linear Solvers: Provable Convergence Rate Through Randomization</i> | poster 39 | SMITHFIELD |
| Peter Benner | <i>Range-Separated Tensor Formats for Numerical Modeling of Many-Particle Systems</i> | poster 17 | DUCK POND |
| Mario Berljafa | <i>Rational Krylov Methods: Matrix Decompositions and Subspace Extraction</i> | poster 19 | DUCK POND |
| Daniel Boley | <i>Fast Computation of Random Walk Fundamental Tensor</i> | poster 15 | DUCK POND |
| Trevor Caldwell | <i>Numerical Conformal Mapping in Chebfun</i> | poster 45 | SMITHFIELD |
| Jurjen Duintjer Tebbens | <i>Condition Number Estimators for Efficient Preconditioning</i> | poster 27 | SMITHFIELD |
| Mark Embree | <i>Restarting GMRES with Weighted Inner Products</i> | poster 21 | DUCK POND |
| Massimiliano Fasi | <i>A Multiprecision Algorithm for the Computation of the Matrix Logarithm</i> | poster 43 | SMITHFIELD |
| Melina Freitag | <i>Balanced Truncation and Singular Perturbation Approximation Model Order Reduction for Stochastically Controlled Linear Systems</i> | poster 31 | SMITHFIELD |
| Luka Grubišić | <i>Finite Element Approximations for a Network of PDEs Modeling a Coronary Stent</i> | poster 33 | SMITHFIELD |
| Iveta Hnětynková | <i>On Pairing Strategies Between Exact and Finite Precision Short-Recurrences</i> | poster 25 | SMITHFIELD |
| Akira Imakura | <i>A Complex Moment-Based Nonlinear Parallel Eigensolver Using the Block Communication-Avoiding Arnoldi Procedure</i> | poster 37 | SMITHFIELD |
| Stefan Johansson | <i>Tools for Computing and Analyzing Canonical Structure Information</i> | poster 35 | SMITHFIELD |
| Nicholas Knight | <i>Communication Lower Bounds for Matrix and Tensor Computations</i> | poster 13 | DUCK POND |
| Daniel Kressner | <i>Subspace Methods for Parameter-Dependent Eigenvalue Problems</i> | poster 3 | DUCK POND |
| Ren-Cang Li | <i>General Theory of Doubling Algorithms for Nonlinear Matrix Equations</i> | poster 11 | DUCK POND |
| Kathryn Lund-Nguyen | <i>Block Krylov Subspace Methods for Functions of Matrices</i> | poster 23 | DUCK POND |
| Thomas Mach | <i>Computing the Roots of Polynomials in Chebyshev Basis via the Cayley Transform</i> | poster 47 | SMITHFIELD |
| Hermann Mena | <i>Solving Stochastic Linear Quadratic Optimal Control Problems</i> | poster 41 | SMITHFIELD |
| Cleve Moler | <i>Another Look at the Arrowhead Coauthor Graph</i> | poster 49 | SMITHFIELD |
| Ron Morgan | <i>New Methods for Difficult Eigenvalue Problems</i> | poster 1 | DUCK POND |
| Bob Plemmons | <i>Computational 3D Imaging: Sparse Recovery and PSF Engineering for 3D Information from 2D Data</i> | poster 51 | SMITHFIELD |
| Punit Sharma | <i>Computing Nearest Stable Matrix Pairs</i> | poster 5 | DUCK POND |
| Roel Van Beeumen | <i>A Newton–Carleman Linearization for Eigenvector Nonlinearities</i> | poster 7 | DUCK POND |
| Andy Wathen | <i>Preconditioning for Two-Phase Flow</i> | poster 29 | SMITHFIELD |

Tuesday: Poster Blitz #2 (8–9pm), Poster Session #2 (9–10:30pm)

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| Zhaojun Bai | <i>Rayleigh Quotient Optimizations and Eigenvalue Problems</i> | poster 4 | DUCK POND |
| Grey Ballard | <i>Discovering Fast Matrix Multiplication Algorithms using Tensor Decomposition</i> | poster 16 | DUCK POND |
| David Bindel | <i>Stochastic Estimators in Gaussian Process Kernel Learning</i> | poster 34 | SMITHFIELD |
| Jessica Bosch | <i>Fast Iterative Solvers for Cahn–Hilliard Problems</i> | poster 22 | DUCK POND |
| Eric de Sturler | <i>Randomization plus Krylov Methods for Efficient Estimates of Block Bilinear and Quadratic Forms</i> | poster 42 | SMITHFIELD |
| Ignat Domanov | <i>On Algebraic Algorithm for the Computation of a Structured Matrix Factorization and Applications for Tensor Decompositions</i> | poster 12 | DUCK POND |
| Caterina Fenu | <i>On the Computation of the GCV Function for Tikhonov Regularization</i> | poster 50 | SMITHFIELD |
| José Garay | <i>Asynchronous Optimized Schwarz Method for the Poisson Equation in Rectangular Domains</i> | poster 38 | SMITHFIELD |
| Misha Kilmer | <i>Tensor Dictionary Learning for Imaging Applications</i> | poster 14 | DUCK POND |
| Jörg Liesen | <i>Numerical Linear Algebra and Walsh’s Conformal Map onto Lemniscatic Domains</i> | poster 44 | SMITHFIELD |
| Robert Luce | <i>Fast and Superfast Computation of the Toeplitz Matrix Exponential</i> | poster 46 | SMITHFIELD |
| Aaron Melman | <i>Bounds on Polynomial Eigenvalues from Extensions and Generalizations of Scalar Polynomial Zero Bounds</i> | poster 8 | DUCK POND |
| Keiichi Morikuni | <i>Inner-iteration Preconditioning for Singular Linear Systems</i> | poster 28 | SMITHFIELD |
| Mirko Myllykoski | <i>How Fast Direct Solvers Can Benefit from GPU-acceleration</i> | poster 36 | SMITHFIELD |
| Davide Palitta | <i>Efficient Krylov Methods for a Class of Large-Scale Generalized Lyapunov Equations</i> | poster 20 | DUCK POND |
| Miroslav Pranić | <i>Interplay Between Gauss Quadrature, Non-Hermitian Lanczos, Padé Approximants and Complex Jacobi Matrices in Quasi-Definite Case</i> | poster 48 | SMITHFIELD |
| Arvind Saibaba | <i>A Randomized Approach for D–Optimal Experimental Design</i> | poster 40 | SMITHFIELD |
| Christian Schröder | <i>Quadratification for Second Order Model Reduction</i> | poster 32 | SMITHFIELD |
| Andreas Stathopoulos | <i>A One-Stage GD+k Method for Computing Left and Right Singular Vectors in Full Accuracy</i> | poster 2 | DUCK POND |
| Pete Stewart | <i>The Geometry of Camille Jordan</i> | poster 52 | SMITHFIELD |
| Ana Šušnjara | <i>Fast Computation of Spectral Projectors of Banded Matrices</i> | poster 6 | DUCK POND |
| Christine Tobler | <i>Graph Algorithms in MATLAB</i> | poster 10 | DUCK POND |
| Francesco Tudisco | <i>A Nonlinear Krylov-type Method for Mixed Subordinate Matrix Norms</i> | poster 26 | SMITHFIELD |
| Steve Vavasis | <i>A New Proof of the Square-Root-Condition-Number Bound for Conjugate Gradient</i> | poster 24 | DUCK POND |
| Fei Xue | <i>A Preconditioned Locally Harmonic Residual Method for Nonlinear Eigenproblems</i> | poster 30 | SMITHFIELD |

ALPHABETICAL LIST OF PRESENTERS

PS1 \implies “Poster Session 1” (Monday night)

PS2 \implies “Poster Session 2” (Tuesday night)

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| Kapil Ahuja | <i>Preconditioned Iterative Solves in Model Reduction of Second Order Linear Dynamical Systems</i> | track 5b | Thu 11:20 | SOLITUDE |
| Kensuke Aishima | <i>A Quadratically Convergent Algorithm Based on Matrix Equations for Inverse Eigenvalue Problems</i> | PS 1 | poster 9 | DUCK POND |
| Thanos Antoulas | <i>Data-Driven Optimization of Large-Scale Systems</i> | plenary | Wed 9:05 | LATHAM AB |
| Francesca Arrigo | <i>Generalized Matrix Functions: Theoretical and Computational Aspects</i> | plenary | Wed 11:05 | LATHAM AB |
| Haim Avron | <i>Revisiting Asynchronous Linear Solvers: Provable Convergence Rate Through Randomization</i> | PS 1 | poster 39 | SMITHFIELD |
| Zhaojun Bai | <i>Rayleigh Quotient Optimizations and Eigenvalue Problems</i> | PS 2 | poster 4 | DUCK POND |
| Grey Ballard | <i>Discovering Fast Matrix Multiplication Algorithms using Tensor Decomposition</i> | PS 2 | poster 16 | DUCK POND |
| Peter Benner | <i>Range-Separated Tensor Formats for Numerical Modeling of Many-Particle Systems</i> | PS 1 | poster 17 | DUCK POND |
| Austin Benson | <i>Spacey Random Walks</i> | track 5c | Thu 12:10 | CASCADES |
| Mario Berljafa | <i>Rational Krylov Methods: Matrix Decompositions and Subspace Extraction</i> | PS 1 | poster 19 | DUCK POND |
| Paolo Bientinesi | <i>The Linear Algebra Mapping Problem (LAMP)</i> | track 1b | Mon 10:55 | SOLITUDE |
| David Bindel | <i>Stochastic Estimators in Gaussian Process Kernel Learning</i> | PS 2 | poster 34 | SMITHFIELD |
| Daniel Boley | <i>Fast Computation of Random Walk Fundamental Tensor</i> | PS 1 | poster 15 | DUCK POND |
| Matthias Bolten | <i>Numerical Linear Algebra Aspects of Parallelization in Time</i> | plenary | Wed 9:40 | LATHAM AB |
| Erik Boman | <i>A Hierarchical Low-rank Solver for Sparse Linear Systems</i> | track 6b | Thu 4:40 | SOLITUDE |
| Jessica Bosch | <i>Fast Iterative Solvers for Cahn–Hilliard Problems</i> | PS 2 | poster 22 | DUCK POND |
| Alessandro Buccini | <i>Non-Stationary Regularizing Preconditioners for Ill-Posed Problems</i> | track 2a | Mon 4:40 | LATHAM AB |
| Trevor Caldwell | <i>Numerical Conformal Mapping in Chebfun</i> | PS 1 | poster 45 | SMITHFIELD |
| João Cardoso | <i>Matrix Arithmetic-Geometric Mean and the Computation of the Logarithm</i> | track 4a | Tue 4:40 | LATHAM AB |
| Erin Carson | <i>The Behavior of Synchronization-Reducing Variants of the Conjugate Gradient Method in Finite Precision</i> | plenary | Mon 2:35 | LATHAM AB |
| Edmond Chow | <i>Iterative Construction and Updating of Incomplete LU Factorizations</i> | plenary | Mon 3:10 | LATHAM AB |
| Julianne Chung | <i>Hybrid Iterative Methods for Large-Scale Bayesian Inverse Problems</i> | track 2a | Mon 5:05 | LATHAM AB |
| Matthias Chung | <i>Optimal Regularized Low-Rank Inverse Matrix Approximation</i> | track 1a | Mon 11:20 | LATHAM AB |
| Anil Damle | <i>Robust and Efficient Multi-Way Spectral Clustering via QR Factorizations with Column Pivoting</i> | track 1a | Mon 10:55 | LATHAM AB |

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| Gianna Del Corso | <i>Combinatorics of Fiedler Pencils with Repetitions</i> | track 2c | Mon 5:05 | CASCADES |
| James Demmel | <i>Communication-Avoiding Algorithms, and the New BLAS</i> | track 1b | Mon 11:20 | SOLITUDE |
| Eric de Sturler | <i>Randomization plus Krylov Methods for Efficient Estimates of Block Bilinear and Quadratic Forms</i> | PS 2 | poster 42 | SMITHFIELD |
| Aditya Devarakonda | <i>Communication-Avoiding Primal and Dual Block Coordinate Descent Methods</i> | track 1b | Mon 12:10 | SOLITUDE |
| Andrii Dmytryshyn | <i>Stratification of Matrix Polynomials</i> | plenary | Tue 2:35 | LATHAM AB |
| Ignat Domanov | <i>On Algebraic Algorithm for the Computation of a Structured Matrix Factorization and Applications for Tensor Decompositions</i> | PS 2 | poster 12 | DUCK POND |
| Froilán Dopico | <i>Strong Linearizations of Rational Matrices: Definition, Explicit Constructions, and Associated Recovery Procedures</i> | track 6a | Thu 4:15 | LATHAM AB |
| Zlatko Drmač | <i>New Contributions to the Theory and Practice of the Discrete Empirical Interpolation Method</i> | track 3b | Tue 10:30 | SOLITUDE |
| Vladimir Druskin | <i>Direct Solution of Inverse Hyperbolic Problems via Data-Driven ROMs</i> | track 5b | Thu 12:10 | SOLITUDE |
| Iain Duff | <i>New Developments in the Solution of Large Sparse Unsymmetric Systems</i> | track 6b | Thu 4:15 | SOLITUDE |
| Jurjen Duintjer Tebbens | <i>Condition Number Estimators for Efficient Preconditioning</i> | PS 1 | poster 27 | SMITHFIELD |
| Alan Edelman | <i>Matrix Trigonometry, or, Where are the Ellipses?</i> | track 3c | Tue 11:20 | CASCADES |
| Howard Elman | <i>Collocation Methods for Exploring Perturbations in Linear Stability Analysis</i> | track 2b | Mon 4:15 | SOLITUDE |
| Mark Embree | <i>Restarting GMRES with Weighted Inner Products</i> | PS 1 | poster 21 | DUCK POND |
| Massimiliano Fasi | <i>A Multiprecision Algorithm for the Computation of the Matrix Logarithm</i> | PS 1 | poster 43 | SMITHFIELD |
| Caterina Fenu | <i>On the Computation of the GCV Function for Tikhonov Regularization</i> | PS 2 | poster 50 | SMITHFIELD |
| Melina Freitag | <i>Balanced Truncation and Singular Perturbation Approximation Model Order Reduction for Stochastically Controlled Linear Systems</i> | PS 1 | poster 31 | SMITHFIELD |
| Shmuel Friedland | <i>Spectral and Nuclear Norms of Higher-Order Tensors</i> | track 5c | Thu 11:20 | CASCADES |
| Andreas Frommer | <i>Spectral Relations Between Overlap Operators and Their Kernels and Their Use in Designing Preconditioners</i> | track 3a | Tue 10:55 | LATHAM AB |
| José Garay | <i>Asynchronous Optimized Schwarz Method for the Poisson Equation in Rectangular Domains</i> | PS 2 | poster 38 | SMITHFIELD |
| Silvia Gazzola | <i>Enforcing Nonnegativity by Flexible Krylov Subspaces</i> | plenary | Mon 2:00 | LATHAM AB |
| Nicolas Gillis | <i>Exact and Heuristic Algorithms for Semi-Nonnegative Matrix Factorization</i> | plenary | Wed 11:40 | LATHAM AB |
| Anne Greenbaum | <i>Optimal Blaschke Products</i> | plenary | Tue 9:40 | LATHAM AB |
| Chen Greif | <i>Recent Advances in the Solution of Saddle-Point Systems</i> | plenary | Mon 9:20 | LATHAM AB |
| Laura Grigori | <i>Low Rank Approximation of a Sparse Matrix Based on LU Factorization with Column and Row Tournament Pivoting</i> | plenary | Thu 2:00 | LATHAM AB |

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| Luka Grubišić | <i>Finite Element Approximations for a Network of PDEs Modeling a Coronary Stent</i> | PS 1 | poster 33 | SMITHFIELD |
| Serkan Gugercin | <i>Sylvester Equations and Tensor Algebra in H_2-Quasi-Optimal Model Order Reduction for Quadratic-Bilinear Control Systems</i> | track 3b | Tue 11:20 | SOLITUDE |
| Mert Gürbüzbalaban | <i>The Role of Without-Replacement Sampling in Least Square Problems and Additive Convex Optimization: New Results and Algorithms</i> | track 6c | Thu 4:15 | CASCADES |
| Iveta Hnětynková | <i>On Pairing Strategies Between Exact and Finite Precision Short-Recurrences</i> | PS 1 | poster 25 | SMITHFIELD |
| Michiel Hochstenbach | <i>Multidirectional Subspace Expansion for Eigenvalue Problems and Inverse Problems</i> | track 2a | Mon 5:30 | LATHAM AB |
| Akira Imakura | <i>A Complex Moment-Based Nonlinear Parallel Eigensolver Using the Block Communication-Avoiding Arnoldi Procedure</i> | PS 1 | poster 37 | SMITHFIELD |
| Ilse Ipsen | <i>Randomized Computation of Active Subspaces</i> | track 1a | Mon 10:30 | LATHAM AB |
| Elias Jarlebring | <i>The Infinite Bi-Lanczos Method for Nonlinear Eigenvalue Problems</i> | track 6a | Thu 4:40 | LATHAM AB |
| Stefan Johansson | <i>Tools for Computing and Analyzing Canonical Structure Information</i> | PS 1 | poster 35 | SMITHFIELD |
| Bo Kågström | <i>NLAFET: Parallel Numerical Linear Algebra for Future Extreme Scale Systems</i> | plenary | Tue 8:30 | LATHAM AB |
| Vladimir Kazeev | <i>Tensor-Structured Multilevel Function Approximation: Sharper Bounds for Polynomial and Piecewise-Analytic Functions</i> | track 5c | Thu 10:30 | CASCADES |
| Misha Kilmer | <i>Tensor Dictionary Learning for Imaging Applications</i> | PS 2 | poster 14 | DUCK POND |
| Nicholas Knight | <i>Communication Lower Bounds for Matrix and Tensor Computations</i> | PS 1 | poster 13 | DUCK POND |
| Andrew Knyazev | <i>Recent Implementations, Applications, and Extensions of the Locally Optimal Block Preconditioned Conjugate Gradient Method (LOBPCG)</i> | track 5a | Thu 10:30 | LATHAM AB |
| Eugenia Kontopoulou | <i>Structural Convergence Results for Low-Rank Approximations from Block Krylov Spaces</i> | track 1a | Mon 11:45 | LATHAM AB |
| Daniel Kressner | <i>Subspace Methods for Parameter-Dependent Eigenvalue Problems</i> | PS 1 | poster 3 | DUCK POND |
| Patrick Kürschner | <i>Numerical Computation of Low-Rank Factors of Time- and Frequency-Limited Gramians</i> | track 5b | Thu 10:30 | SOLITUDE |
| Rich Lehoucq | <i>A Computational Spectral Graph Theory Tutorial</i> | plenary | Mon 8:45 | LATHAM AB |
| Ren-Cang Li | <i>General Theory of Doubling Algorithms for Nonlinear Matrix Equations</i> | PS 1 | poster 11 | DUCK POND |
| Xiaoye Li | <i>Sparse Factorization Methods for Indefinite Systems Towards Exascale</i> | track 1b | Mon 10:30 | SOLITUDE |
| Jörg Liesen | <i>Numerical Linear Algebra and Walsh's Conformal Map onto Lemniscatic Domains</i> | PS 2 | poster 44 | SMITHFIELD |
| Ding Lu | <i>A Criss-Cross Type Algorithm for Computing the Real Pseudospectral Abscissa</i> | track 2b | Mon 5:05 | SOLITUDE |
| Robert Luce | <i>Fast and Superfast Computation of the Toeplitz Matrix Exponential</i> | PS 2 | poster 46 | SMITHFIELD |
| Kathryn Lund-Nguyen | <i>Block Krylov Subspace Methods for Functions of Matrices</i> | PS 1 | poster 23 | DUCK POND |

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| Thomas Mach | <i>Computing the Roots of Polynomials in Chebyshev Basis via the Cayley Transform</i> | PS 1 | poster 47 | SMITHFIELD |
| Steven Mackey | <i>Product Realizations for Matrix Polynomials</i> | track 2c | Mon 4:15 | CASCADES |
| Roummel Marcia | <i>Compact Representation of Quasi-Newton Update Matrices</i> | track 6c | Thu 4:40 | CASCADES |
| Nicola Mastronardi | <i>Revisiting the Perfect Shift Strategy in the Implicitly Shifted QR Algorithm</i> | track 3c | Tue 10:30 | CASCADES |
| Mariarosa Mazza | <i>Spectral Analysis and Numerical Methods for Space-Fractional Diffusion Equations</i> | track 1c | Mon 11:20 | CASCADES |
| Karl Meerbergen | <i>Can We Solve Nonlinear Eigenvalue Problems?</i> | plenary | Wed 8:30 | LATHAM AB |
| Volker Mehrmann | <i>The Distance to Instability for Port-Hamiltonian Systems</i> | track 2c | Mon 5:30 | SOLITUDE |
| Aaron Melman | <i>Bounds on Polynomial Eigenvalues from Extensions and Generalizations of Scalar Polynomial Zero Bounds</i> | PS 2 | poster 8 | DUCK POND |
| Hermann Mena | <i>Solving Stochastic Linear Quadratic Optimal Control Problems</i> | PS 1 | poster 41 | SMITHFIELD |
| Emre Mengi | <i>A Subspace Framework for Large-Scale H_∞ Norm Computation</i> | track 5b | Thu 10:55 | SOLITUDE |
| Agnieszka Międlar | <i>Super-Converging Ritz Values via p-Hierarchical Inverse Iteration</i> | track 5a | Thu 10:55 | LATHAM AB |
| Tim Mitchell | <i>A Fast and Scalable Method for Approximating the Real Structured Stability Radius with Frobenius-Norm Bounded Perturbations</i> | track 2b | Mon 4:40 | SOLITUDE |
| Cleve Moler | <i>Another Look at the Arrowhead Coauthor Graph</i> | PS 1 | poster 49 | SMITHFIELD |
| Ron Morgan | <i>New Methods for Difficult Eigenvalue Problems</i> | PS 1 | poster 1 | DUCK POND |
| Keiichi Morikuni | <i>Inner-iteration Preconditioning for Singular Linear Systems</i> | PS 2 | poster 28 | SMITHFIELD |
| Julio Moro | <i>Asymptotic Expansions for Eigenvalues of Multiplicatively Perturbed Matrices</i> | track 4c | Tue 4:15 | CASCADES |
| Mirko Myllykoski | <i>How Fast Direct Solvers Can Benefit from GPU-acceleration</i> | PS 2 | poster 36 | SMITHFIELD |
| Yuji Nakatsukasa | <i>Global Optimization via Eigenvalues</i> | plenary | Tue 3:10 | LATHAM AB |
| Esmond Ng | <i>Enhancing Performance of Sparse Matrix Factorizations via Ordering Refinements</i> | track 4b | Tue 5:05 | SOLITUDE |
| Vanni Noferini | <i>Matrix Polynomials Meet Complex Network Analysis: The Deformed Graph Laplacian and its Applications</i> | plenary | Wed 10:30 | LATHAM AB |
| Michael Overton | <i>Numerical Investigation of Crouzeix's Conjecture</i> | track 4a | Mon 5:30 | LATHAM AB |
| Chris Paige | <i>Loss of Orthogonality, and Accuracy of the Finite Precision Lanczos Process and Conjugate Gradients</i> | track 5a | Thu 11:45 | LATHAM AB |
| Davide Palitta | <i>Efficient Krylov Methods for a Class of Large-Scale Generalized Lyapunov Equations</i> | PS 2 | poster 20 | DUCK POND |
| John Pearson | <i>Fast Interior Point Solvers and Preconditioning for PDE-Constrained Optimization</i> | plenary | Fri 9:05 | LATHAM AB |
| Benjamin Peherstorfer | <i>Optimal Low-Rank Updates for Online Adaptive Model Reduction with the Discrete Empirical Interpolation Method</i> | track 3b | Tue 10:55 | SOLITUDE |

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| Javier Pérez | <i>Structured and Global Backward Error Analysis of Odd-Degree Structured Polynomial Eigenvalue Problems Solved via Structure-Preserving Linearizations</i> | track 2c | Mon 5:30 | CASCADES |
| Jennifer Pestana | <i>Preconditioned MINRES for Nonsymmetric Toeplitz and Block Toeplitz Matrices</i> | plenary | Fri 8:30 | LATHAM AB |
| Bob Plemmons | <i>Computational 3D Imaging: Sparse Recovery and PSF Engineering for 3D Information from 2D Data</i> | PS 1 | poster 51 | SMITHFIELD |
| Bor Plestenjak | <i>Subspace Methods for Multiparameter Eigenvalue Problems with Applications to Separable Boundary Value Problems</i> | track 6a | Thu 5:05 | LATHAM AB |
| Federico Poloni | <i>Rigorous Invariant Measure Computations Using a Two-Grid Strategy to Approximate Matrix Norms</i> | plenary | Thu 3:10 | LATHAM AB |
| Stefano Pozza | <i>Decay Bounds for Functions of Banded Non-Hermitian Matrices</i> | track 4a | Tue 4:15 | LATHAM AB |
| Miroslav Pranić | <i>Interplay Between Gauss Quadrature, Non-Hermitian Lanczos, Padé Approximants and Complex Jacobi Matrices in Quasi-Definite Case</i> | PS 2 | poster 48 | SMITHFIELD |
| Yang Qi | <i>Nonnegative Tensor Rank</i> | track 5c | Thu 10:55 | CASCADES |
| Rob Remis | <i>Stability-Corrected Wave Functions and Structure-Preserving Rational Krylov Methods for Large-Scale Wavefield Simulations on Open Domains</i> | track 5b | Thu 11:45 | SOLITUDE |
| Leonardo Robol | <i>Fast and Backward Stable Computation of the Eigenvalues of Matrix Polynomials</i> | plenary | Tue 2:00 | LATHAM AB |
| Eloy Romero | <i>Combining Refined and Standard Rayleigh-Ritz for Interior Hermitian Eigenvalue Problems</i> | track 5a | Thu 11:20 | LATHAM AB |
| Miro Rozložník | <i>On the Conditioning of Factors in the SR Decomposition</i> | track 4c | Tue 5:05 | CASCADES |
| Daniel Ruiz | <i>A Refined Lower Bound on the Positive Eigenvalues of Saddle Point Matrices that Incorporates Specific Information from the Interactions Between the Blocks</i> | track 3a | Tue 12:10 | LATHAM AB |
| Arvind Saibaba | <i>A Randomized Approach for D-Optimal Experimental Design</i> | PS 2 | poster 40 | SMITHFIELD |
| Michael Saunders | <i>Error Bounds for CG via SYMMLQ</i> | plenary | Fri 11:05 | LATHAM AB |
| Christian Schröder | <i>Quadratification for Second Order Model Reduction</i> | PS 2 | poster 32 | SMITHFIELD |
| Marcel Schweitzer | <i>Computing Low-Rank Approximations of the Fréchet Derivative of a Matrix Function by Two-Sided and Block Krylov Subspace Methods</i> | track 4a | Tue 5:05 | LATHAM AB |
| Jennifer Scott | <i>The Challenge of Rank-Deficient Sparse Linear Least-Squares Problems</i> | track 2a | Mon 4:15 | LATHAM AB |
| Stefano Serra-Capizzano | <i>Eigenvalues of Banded Symmetric Toeplitz Matrices are Known Almost in Close Form: Numerics and Algorithmic Proposals</i> | track 1c | Mon 10:30 | CASCADES |
| Meiyue Shao | <i>Recent Progress on the Bethe-Salpeter Eigenvalue Problem</i> | track 1c | Mon 10:55 | CASCADES |
| Punit Sharma | <i>Computing Nearest Stable Matrix Pairs</i> | PS 1 | poster 5 | DUCK POND |
| Josef Sifuentes | <i>Spectral Properties of Approximately Preconditioned Saddle Point Problems and GMRES Convergence Bounds</i> | track 3a | Tue 11:45 | LATHAM AB |

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| Edgar Solomonik | <i>A Communication-Avoiding Parallel Algorithm for the Symmetric Eigenvalue Problem</i> | track 1b | Mon 11:45 | SOLITUDE |
| Fredy Sosa | <i>Structured Multiplicative Perturbation of Eigenvalues of Symplectic Matrices</i> | track 4c | Tue 4:40 | CASCADES |
| Andreas Stathopoulos | <i>A One-Stage GD+k Method for Computing Left and Right Singular Vectors in Full Accuracy</i> | PS 2 | poster 2 | DUCK POND |
| Pete Stewart | <i>The Geometry of Camille Jordan</i> | PS 2 | poster 52 | SMITHFIELD |
| Zdeněk Strakoš | <i>Sparsity, Discretization, Preconditioning, and Adaptivity in Linear Solvers</i> | plenary | Fri 10:30 | LATHAM AB |
| Ana Šušnjara | <i>Fast Computation of Spectral Projectors of Banded Matrices</i> | PS 2 | poster 6 | DUCK POND |
| Brian Sutton | <i>On the Cut Locus of a Flag Manifold</i> | track 3c | Tue 11:45 | CASCADES |
| Daniel Szyld | <i>Asynchronous Optimized Schwarz Methods: Convergence Theory and Experiments</i> | track 3a | Tue 10:30 | LATHAM AB |
| Petr Tichý | <i>Towards Practical Estimation of the A-norm of the Error in CG</i> | track 6b | Thu 5:05 | SOLITUDE |
| Françoise Tisseur | <i>Incomplete LU Preconditioner Based on Max-Plus Approximation of LU Factorization</i> | track 4b | Tue 4:15 | SOLITUDE |
| Christine Tobler | <i>Graph Algorithms in MATLAB</i> | PS 2 | poster 10 | DUCK POND |
| Alex Townsend | <i>On the Singular Values of Matrices with Displacement Structure</i> | plenary | Tue 9:05 | LATHAM AB |
| Nick Trefethen | <i>Block Operators and Spectral Discretizations</i> | track 1c | Mon 11:45 | CASCADES |
| Ninoslav Truhar | <i>Perturbation Bounds for the Quadratic Eigenvalue Problem</i> | track 2c | Mon 4:40 | CASCADES |
| Francesco Tudisco | <i>A Nonlinear Krylov-type Method for Mixed Subordinate Matrix Norms</i> | PS 2 | poster 26 | SMITHFIELD |
| Miroslav Tůma | <i>Towards Data-Sparse Incomplete Factorizations</i> | track 4b | Tue 4:40 | SOLITUDE |
| Roel Van Beeumen | <i>A Newton–Carleman Linearization for Eigenvector Nonlinearities</i> | PS 1 | poster 7 | DUCK POND |
| Bart Vandereycken | <i>Subspace Methods for Computing the Crawford Number and the Real Pseudospectral Abscissa</i> | plenary | Thu 8:45 | LATHAM AB |
| Paul Van Dooren | <i>Dual Minimal Bases of Polynomial Matrices and Applications</i> | plenary | Fri 9:40 | LATHAM AB |
| Nick Vannieuwenhoven | <i>Riemannian Optimization and a Geometric Condition Number for Tensor Rank Decompositions</i> | plenary | Thu 2:35 | LATHAM AB |
| Steve Vavasis | <i>A New Proof of the Square-Root-Condition-Number Bound for Conjugate Gradient</i> | PS 2 | poster 24 | DUCK POND |
| Matthias Voigt | <i>Linear-Quadratic Optimal Control of Differential-Algebraic Equations</i> | track 6c | Thu 5:05 | CASCADES |
| Kees Vuik | <i>The Adapted Augmented Lagrangian Preconditioner for the Turbulent Incompressible Navier-Stokes Equations Discretized by a Finite Volume Method</i> | track 3a | Tue 11:20 | LATHAM AB |
| Andy Wathen | <i>Preconditioning for Two-Phase Flow</i> | PS 1 | poster 29 | SMITHFIELD |
| David Watkins | <i>Francis’s Algorithm as a Core-Chasing Algorithm</i> | track 3c | Tue 10:55 | CASCADES |
| Jianlin Xia | <i>Fast and Superfast Structured Eigenvalue Solutions and Accuracy Analysis</i> | track 5a | Thu 12:10 | LATHAM AB |
| Fei Xue | <i>A Preconditioned Locally Harmonic Residual Method for Nonlinear Eigenproblems</i> | PS 2 | poster 30 | SMITHFIELD |

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| Ke Ye | <i>Fast Structured Matrix Computations: Tensor Rank and Cohn–Umans Method</i> | track 5c | Thu 11:45 | CASCADES |
| Mikhail Zaslavsky | <i>Algebraic Sparse Reduced Order Multi-Scale Method for Large Dynamical Systems</i> | track 3b | Tue 11:45 | SOLITUDE |
| Ning Zheng | <i>An Alternating Modulus Nonnegative Least Squares Method for Nonnegative Matrix Factorization</i> | track 1a | Mon 12:10 | LATHAM AB |
| Jörn Zimmerling | <i>Phase-Preconditioned Rational Krylov Subspaces for Wave Simulation</i> | track 3b | Tue 12:10 | SOLITUDE |