



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
- 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, 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
- 10:30–12:10pm 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

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>

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

Chair: Eric de Sturler

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

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

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

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

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

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

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

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

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	Michael Overton	<i>Numerical Investigation of Crouzeix's Conjecture</i>

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

Chair: Julianne Chung

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>
5:30pm	Ning Zheng	<i>An Alternating Modulus Nonnegative Least Squares Method for Nonnegative Matrix Factorization</i>

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

Chair: Mark Embree

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

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

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

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

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

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

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)

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)

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)

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

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

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

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

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

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 Abcissa</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

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