Matrix Equations and Tensor Techniques IX (METTIX)

Thursday, 9 September 2021

Talks: De Terán, Ren Cang Li, Addis, Meini, Kirsten (11:10 - 12:50)

time	[id] title	presenter
11:10	[43] On the consistency of $X^\top AX=B$ when B is either symmetric or skew	DE TERÁN, Fernando
11:30	[10] Recent Progresses on Highly Entrywise Accurate Methods For Matrix Equations	LI, Ren-Cang
11:50	[35] Elementwise accurate doubling algorithm for shifted M-matrix algebraic Riccati equations	ADDIS, Elena
12:10	[33] Palindromic linearization and numerical solution of nonsymmetric algebraic T-Riccati equations	MEINI, Beatrice
12:30	[44] A matrix-oriented POD-DEIM algorithm applied to semilinear differential matrix equations	KIRSTEN, Gerhard

Talks: Werthmann, Klever, Dinh, Köhler, Cardoso (14:40 - 16:20)

time	[id] title	presenter
14:40	[29] Operator-dependent prolongation and restriction for parameter-dependent multigrid methods using low-rank tensor formats	Mr WERTHMANN, Tim A.
15:00	[30] Low-rank tensor uniformization for tumor progression modeling	KLEVER, Maren
15:20	[45] A predictor-corrector method in quantized tensor train format for the equilibrium of the chemical master equation	Ms DINH, Trang
15:40	[26] A Successive Divide and Conquer Algorithm for the Unilateral Quadratic Matrix Equation	KÖHLER, Martin
16:00	[18] Solving the Discrete Euler-Arnold Equations for the Generalized Rigid Body Motion	CARDOSO, Joao

Friday, 10 September 2021

Talks: Moakher, Jeong-Hoon Ju, Kim (09:45 - 10:45)

time	[id] title	presenter
09:45	[42] Solution of the matrix equation for geodesics associated with the Riemannian metric on the space of positive-definite matrices based on the power potential	MOAKHER, Maher
10:05	[28] Optimal Constant for Generalized Diagonal Update Method	JU, Jeong-Hoon
10:25	[31] On Newton Method for the Minimal Positive Solution of a System of Multi-Variable Nonlinear Matrix Equations	KIM, Taehyeong

Talks: Dewaele, Evert, Widdershoven, Al Daas, Budzinskiy (11:10 - 12:50)

time	[id] title	presenter
11:10	[15] Computing the condition number of tensor decompositions through Tucker compression	DEWAELE, Nick
11:30	[11] A recursive eigenspace computation for the Canonical Polyadic decomposition	EVERT, Eric
11:50	[13] Multiway data regression using a spline-type tensor decomposition	WIDDERSHOVEN, Raphaël
12:10	[40] Randomized Algorithms for Rounding the Tensor Train Format	AL DAAS, Hussam
12:30	[36] On the number of elements needed for low-rank tensor train completion	BUDZINSKIY, Stanislav

Talks: Strossner, Brandoni, Cortinovis, Massei (14:40 - 16:00)

time	[id] title	presenter
14:40	[8] Solving PDEs on hypercubes using Chebyshev interpolation	STRÖSSNER, Christoph
15:00	[32] A Tensor-Train Dictionary Learning algorithm based on spectral proximal alternating linearized minimization	BRANDONI, Domitilla
15:20	[9] Divide and conquer methods for functions of matrices with banded or hierarchical low-rank structure	CORTINOVIS, Alice
15:40	[17] Hierarchical adaptive low-rank format with applications to discretized PDEs	MASSEI, Stefano

Talks: Frittelli, Cassini, Morozov, Colley (16:30 - 17:50)

time	[id] title	presenter
16:30	[34] Matrix-oriented FEM formulation for stationary and time-dependent PDEs on x-normal domains	FRITTELLI, Massimo
16:50	[14] A mu-mode integrator for solving evolution equations in Kronecker form	CASSINI, Fabio
17:10	[23] Decoupling Dominant Z-eigenvectors of Tensor Kronecker Products	COLLEY, Charles
17:30	[41] On the low-rank approximations in the Chebyshev norm	MOROZOV, Stanislav