

TUESDAY, June 13. Morning

MSI04. Matrix equations.

11:10-11:40: **AULA 15**. Numerical solution of a class of quasi-linear matrix equations. Valeria Simoncini.

11:40-12:10: **AULA 15**. Inexact low-rank ADI for large-scale Sylvester equations. Patrik Kürschner.

12:10-12:40: **AULA 15**. Deflating subspaces of palindromic pencils and the T-Riccati matrix equation. Bruno Iannazzo.

12:40-13:10: **AULA 15**. Compress-and-restart block Krylov subspace methods for Sylvester matrix equations. Kathryn Lund.

MSI05. Realization formulas, rational inner functions, and real algebraic geometry.

11:10-11:40: **AULA 5**. Contractive realizations of rational functions on polynomially defined domains and contractive determinantal representations of stable polynomials. Victor Vinnikov.

11:40-12:10: **AULA 5**. Hankel forms over a free monoid. Michael T. Jury.

12:10-12:40: **AULA 5**. Realizations of rational inner functions in the full Fock space. Robert T. W. Martin.

12:40-13:10: **AULA 5**. Spectrahedral Shadows and Completely Positive Maps on Real Closed Fields. Mario Kummer.

MSC01. ILAS education.

11:10-11:40: **AULA 6**. Give an example of... Rachel Quinlan.

11:40-12:10: **AULA 6**. A study of quadratic forms in Linear Algebra with GeoGebra. André Lucio Grande.

12:10-12:40: **AULA 6**. Linear Algebra Education Reform, A Retrospective. Steven J. Leon.

12:40-13:10: **AULA 6**. Virtual reality for the teaching of linear geometry. José L. Rodríguez.

MSC02. New faces of spectral graph theory.

11:10-11:40: **AULA SEMINARIOS**. On classes of minimal trees. Carlos Hoppen.

11:40-12:10: **AULA SEMINARIOS**. On Sidorenko's conjecture for determinants and Gaussian Markov random fields. Peter Csikvari.

12:10-12:40: **AULA SEMINARIOS**. Spectra of trees. Thomas Jung.

12:40-13:10: **AULA SEMINARIOS**. Algebraic connectivity of maximal outerplanar graphs. Claudia M. Justel.

MSC06. Matrix and operator means.

11:10-11:40: **AULA 11**. Algebraic properties of operations on positive definite cones in operator algebras corresponding to various versions of Heron means. Lajos Molnár.

11:40-12:10: **AULA 11**. Non-homogeneous gradient equations for sum of squares of Wasserstein metric. Jinmi Hwang.

12:10-12:40: **AULA 11**. Geometric means on some matrix manifolds. Luis Machado.

12:40-13:10: **AULA 11**. Operator means of positive definite compact operators and their properties. Sushil Singla.

MSC08. In honour of Steve Kirkland's 60th Birthday.

11:10-11:40: **SALÓN DE ACTOS**. Reminiscences of Steve Kirkland. Richard A. Brualdi.

11:40-12:10: **SALÓN DE ACTOS**. Rank one perturbations for cone reachability and holdability. Michael Tsatsomeros.

12:10-12:40: **SALÓN DE ACTOS**. Refined inertias of full and hollow positive sign patterns. Minerva Catral.

12:40-13:10: **SALÓN DE ACTOS**. A Short Survey on the Scrambling Index of Primitive Digraphs. Mahmud Akelbek.

MSC09. Polynomial and rational matrices and applications.

11:10-11:40: **AULA 16**. Spectral Localization and the Infinite Elementary Divisor Structure of Matrix Polynomials. D. Steven Mackey.

11:40-12:10: **AULA 16**. Filters connecting spectrally equivalent nonsingular polynomial matrices. Silvia Marcaida.

12:10-12:40: **AULA 16**. Isomorphisms between Ansatz Spaces over Classical Polynomial Bases. Vasilije Perovic.

12:40-13:10: **AULA 16**. Diagonalizable Matrix Polynomials. Ion Zaballa.

MSC15. Connection between rational function/polynomial approximation and structured matrices for solving differential equations.

11:10–11:40: **AULA 3**. Rational Krylov for Stieltjes matrix functions with Kronecker structure. Leonardo Robol.

11:40–12:10: **AULA 3**. Sketched and truncated polynomial Krylov methods for matrix equations. Marcel Schweitzer.

12:10–12:40: **AULA 3**. Quantum Krylov Methods: What's the Deal?. Roel Van Beeumen.

12:40–13:10: **AULA 3**. A new Legendre polynomial approach for computing the matrix exponential. Shazma Zahid.

MSC18. Riordan arrays and related topics.

11:10–11:40: **AULA 7**. Riordan Group Involutions. Luis Shapiro.

11:40–12:10: **AULA 7**. Exponential Riordan matrices and decomposition of Hankel matrices. Emanuele Munarini.

12:10–12:40: **AULA 7**. Combinatorics on the negative part of Riordan matrices. Minh Song.

12:40–13:10: **AULA 7**. Properties of Riordan quotients. Paul Barry.

MSC23. Tensors and quantum information.

11:10–11:40: **AULA 6F**. Inevitability of Negative Quantum Conditional Entropy. Gilad Gour.

11:40–12:10: **AULA 6F**. Measurement sharpness and incompatibility as quantum resources. Francesco Buscemi.

12:10–12:40: **AULA 6F**. A new distance between pure states of qudits. Tomasz Miller.

12:40–13:10: **AULA 6F**. Quantum Wasserstein semi-distances and applications. Michal Eckstein.