

ILAS 2019 - FULL PROGRAM

JULY 08, MONDAY		Main Auditorium	Auditorium 12th Floor	Room 908 9th floor	Room 909 9th floor	Room 910 9th floor	Room 911 9th floor	Room 912 9th floor	Room 913 9th floor	Room 1013 10th floor	Room 1014 10th floor	
	08h10-08h30	Opening Session										
	08h30-09h20	Plenary 1 <i>Nikhil Srivastava</i>										
	09h20-09h50	<i>Coffee Break</i>										
	10h00-12h00			MS11 - I	MS2 - I	CT2	MS15 - I	MS10 - I	CT3	CT4	MS1 - I	
	12h00-13h50	<i>Lunch (on your own)</i>										
	13h50-15h20			MS8 - I			MS19 - I	MS10 - II	MS6 - I	CT4	MS1 - II	
	15h20-15h50	<i>Coffee Break</i>										
	15h50-17h20			MS8 - II					CT8	MS6 - II	MS18 - I	
	17h30-18h20	Plenary 2 <i>Joseph Landsberg</i> LAA lecturer										
18h30	<i>Cocktail</i>											

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JULY 10, WEDNESDAY		Main Auditorium	Auditorium 12th Floor	Room 908 9th floor	Room 909 9th floor	Room 910 9th floor	Room 911 9th floor	Room 912 9th floor	Room 913 9th floor	Room 1013 10th floor	Room 1014 10th floor	
	08h30-09h20	Plenary 6 Volker Mehrmann HS lecturer										
	09h20-09h50	<i>Coffee Break</i>										
	10h00-12h00		MC2	CT3	MS5 - II		MS12 - II	MS17 - I	MS7 - II	MS18 - III	MS3 - I	
	12h00-13h50	<i>Lunch (on your own)</i>										
	14h00-18h00	<i>Optional - Tour in Rio</i>										
	19h00	<i>Conference Dinner</i>										

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JULY 12, FRIDAY		Main Auditorium	Auditorium 12th Floor	Room 908 9th floor	Room 909 9th floor	Room 910 9th floor	Room 911 9th floor	Room 912 9th floor	Room 913 9th floor	Room 1013 10th floor	Room 1014 10th floor	
	08h30-09h20	Plenary 10 <i>Christoph Helmberg</i>										
	09h20-09h50	<i>Coffee Break</i>										
	10h00-12h00		MC1	MS9 - II	MS20 - II		MS16 - II	MS4 - II	MS13 - I	CT1	MS3 - III	
	12h00-13h50	<i>Lunch (on your own)</i>										
	13h50-15h20						MS19 - III	CT6	MS14 - III	MS18 - V	MS21 - III	
	15h30-16h20	Plenary 11 <i>David Bindel</i> SIAG-LA lecturer										
	16h20-16h50	<i>Closing Ceremony at the Main Auditorium, followed by coffee break</i>										

MS1	Algorithms for rank-structured matrices and low-rank approximation	
MS1 – I Monday 10:00am-12:00pm Room 1014		
MS1 - I	Clément Pernet	<i>Fast Matrix Arithmetic for Rank Structured Matrices Using Non Hierarchical</i>
	Leonardo Robol	<i>Fast Solvers for 2d Fractional Diffusion Equations Using Rank Structured Matrices</i>
	Vaishnavi Gujjula	<i>Directional Fast Multipole Method for Helmholtz Kernel</i>
	Stefano Massei	<i>A Low-Rank Technique for Computing the Quasi Stationary Distribution of Galton-</i>
MS1 – II Monday 1:50pm -3:20pm Room 1014		
MS1 - II	Mikhail Lepilov	<i>Robust SIF Preconditioners for SPD Matrices</i>
	Paola Boito	<i>Quasi Separable Generators of Green Matrices</i>
	Rong Huang	<i>A QD-Type Method for Computing Generalized Singular Values of BF Matrix Pairs</i>
MS1 – III Tuesday 10:00am-12:00pm Room 1014		
MS1 - III	Niel Van Buggenhout	<i>Matrix Structures in Rational Krylov Subspace Methods</i>
	Gianna M. Del Corso	<i>Orthogonal iterations for structured pencils arising from nonlinear eigenvalue problems</i>
	Vanni Noferini	<i>How QR-Based Rootfinding in Orthogonal Bases Could be Made Stable</i>
	Yuli Eidelman	<i>The Bisection Eigenvalue Method for Hermitian and Related Matrices With Quasi</i>
MS2	Cocliques and colouring	
MS2 – I Monday 10:00am-12:00pm Room 909		
MS2 - I	Chris Godsil	<i>Graph Colouring, Quantum Colouring and Eigenvalues</i>
	Yinan Li	<i>Quantum asymptotic spectra and quantum Shannon capacities</i>
	Rafael Grandsire	<i>Colouring the normalized Laplacian</i>
	Nathan Lindzey	<i>Erdős-Ko-Rado, Cocliques, and Association Schemes</i>
MS2 – II Tuesday Morning 10:00am-12:00pm Room 909		
MS2 - II	Robert Samal	<i>Unique vector coloring and its application to certify a graph is core</i>
	Brendan Rooney	<i>Vector Colourings of Categorical Products</i>
	Marcel Silva	<i>Dual Hoffman Bounds for the Stability and Chromatic Numbers Based on SDP</i>
	John Sinkovich	<i>Loose graphs: graphs for which the inertia bound is not tight</i>

MC1	Graph Theory and Quantum Walks
MC2	Nonlinear techniques in matrix theory

MS3		Combinatorial Matrix Theory	
MS3 – I Wednesday 10:00am-12:00pm Room 1014			
MS3 - I	Geir Dahl	<i>Matrix Covering Problems</i>	
	Richard Brualdi	<i>Oriented graphs/asymmetric (0,1)-matrices</i>	
	Sebastian Cioaba	<i>How to address a graph?</i>	
	Rachel Quinlan	<i>Rank distributions for entry pattern matrices</i>	
MS3 – II Thursday 10:00am-12:00pm Room 1014			
MS3 - II	Steve Kirkland	<i>Complete multipartite graphs and Braess edges</i>	
	Jane Breen	<i>Kemeny's constant and random walks on graphs</i>	
	Irene Sciriha	<i>On graphs with the same main eigenspace</i>	
	Keivan Monfared	<i>Inverse spectral problems for graphs</i>	
MS3 – III Friday 10:00am-12:00pm Room 1014			
MS3 - III	Jephian Lin	<i>Zero forcing number, Grundy domination number and variants</i>	
	Leslie Hogben	<i>SPN graphs</i>	
	John Sinkovic	<i>Properties of matrices associated with an outerplanar graph</i>	
	Chris Godsil	<i>Sedentary quantum walks</i>	
MS4		Evolution Algebras and non associative algebraic structures	
MS4 – I Thursday 2:50pm– 4:20pm Room 912			
MS4 - I	Maria Victoria Velasco	<i>Evolution Algebras and Related Topics</i>	
	Yolanda Cabrera Casado	<i>Basic Ideals in Evolution Algebras</i>	
	Irene Paniello	<i>Coalgebras Related to Genetic Systems</i>	
MS4 – II Friday 10am-12am Room 912			
MS4 - II	Pablo Rodriguez	<i>On the Existence of Isomorphisms Between Evolution Algebras Associated to a Graph</i>	
	Raúl Falcón	<i>Mutations in Evolution Algebras Based on Partial Quasigroups</i>	
	Paula Cadavid	<i>Characterization Theorems for the Spaces of Derivations of Evolution Algebras</i>	

MS5		Frame Theory and Data Science
MS5 – I Tuesday 2:50pm – 4:20pm Room 909		
MS5 - I	Akram Aldroubi	<i>Phaseless reconstruction in evolutionary systems</i>
	Bernard Bodmann	<i>Phase retrieval from proximity to subspaces</i>
	Dustin Mixon	<i>SqueezeFit: Label-aware dimensionality reduction by semidefinite programming</i>
MS5 – II Wednesday 10:00am–12:00pm Room 909		
MS5 - II	Claudio Mayrink Verdun	<i>Completion of Structured Low-Rank Matrices via Iteratively Reweighted Least Squares</i>
	Mike Perlmutter	<i>The Geometric Scattering Transform on Manifolds</i>
	Soledad Villar	<i>Label-aware dimensionality reduction with semidefinite programming</i>
	Nate Strawn	<i>Graphical Data Embeddings and Generalized Convolutional Neural Networks</i>
MS5 – III Thursday 2:50pm– 4:20pm Room 909		
MS5 - III	Xuemei Chen	<i>Sensing with Redundant Frames</i>
	Kasso Okoudjou	<i>On the frame set of the 2-spline</i>
	Martin Genzel	<i>A New Perspective on L1-Analysis Recovery</i>
MS6		Linear Algebra and Education
MS6 – I Monday 1:50pm–3:20pm Room 913		
MS6 - I	Jane Breen	<i>Small ideas to improve the learning of basic linear algebra</i>
	Mary Flagg	<i>Teaching Linear Algebra with History</i>
	Wayne Stewart	<i>Introducing principal components to students of multivariate statistics</i>
MS6 – II Monday 3:50pm– 5:20pm Room 913		
MS6 - II	Kirsten Pfeiffer & Rachel Quinlan	<i>Proof evaluation as a learning activity</i>
	Sepideh Stewart	<i>Linear Algebra Curriculum Study Group 2.0</i>
MS7		Linear Algebra and Quantum Information Science
MS7 – I Tuesday 10:00am–12:00pm Room 913		
MS7 - I	Carlos Felipe Lardizabal	<i>Mean hitting times of open quantum walks in terms of generalized inverses</i>
	Mark Kempton	<i>Approximate Quantum Fractional Revival in Paths</i>
	Ying-Fen Lin	<i>Positive extensions of Schur multipliers</i>
	Lajos Molnár	<i>Bures isometries between density spaces of C^*-algebras</i>
MS7 – II Wednesday 10:00am–12:00am Room 913		
MS7 - II	Jinchuan Hou	<i>Constructing entanglement witnesses by permutation pairs</i>
	Sarah Plosker	<i>Schur multipliers and mixed unitary maps</i>
	Nathaniel Johnston	<i>Pairwise Completely Positive Matrices and their Connection with Quantum Entanglement</i>
	Rajesh Pereira	<i>One Way LOCC sets</i>

MS8		Matrices over elementary divisor domains	
		MS8-I Monday 1:50pm-3:20pm Room 908	
MS8 - I	Vanni Noferini	<i>Matrices in companion rings and their Smith forms, with applications to group theory</i>	
	Luis Miguel Anguas	<i>Preserving degree quasi-triangularization of regular matrix polynomials over arbitrary fields</i>	
	Alicia Roca	<i>Structure of matrix pencils under bounded or fixed rank perturbations</i>	
		MS8 - II Monday 3:50pm-5:20pm Room 908	
MS8 - II	João Filipe Queiró	<i>Divisibility relations for invariant factors</i>	
	Fernando de Terán	<i>A class of quasi-sparse companion pencils of matrix polynomials over arbitrary fields</i>	
		MS8 - III Tuesday 2:50pm– 4:20pm Room 908	
MS8 - III	Javier Pérez	<i>On even-degree symmetric matrix polynomials and their structure-preserving</i>	
	Leonardo Robol	<i>Fast computation of eigenvalues of matrix polynomials</i>	
	Froilán M. Dopico	<i>Conditioning and backward errors of eigenvalues of homogeneous matrix polynomials under Möbius transformations</i>	
MS9		Matrix Analysis	
		MS9 – I Thursday 10pm-12pm Room 908	
MS9 - I	Hugo Woerdeman	<i>A determinantal representation for a class of non-stable bivariate polynomials</i>	
	Luis Verde-Star	<i>Construction of matrix functions using generalized binomial coefficients and Newton</i>	
	Robert Martin	<i>Blaschke-Singular-Outer factorization of non-commutative functions</i>	
	Igor Klep	<i>Positive vs completely positive maps</i>	
		MS9 – II Friday 10pm-12pm Room 908	
MS9 - II	Tamás Titkos	<i>Positive operators on anti-dual pairs: Parallel addition</i>	
	James Pascoe	<i>Noncommutative positivity preserving products and their Schoenberg type theory</i>	
	Ryan Tully-Doyle	<i>Loewner's Theorem in Several Variables</i>	
	Miklós Pálfia	<i>Representation formulas for operator monotone and concave functions</i>	

MS10		Matrix Equations and Matrix Inequalities	
MS10 - I Monday 10:00am-12:00pm Room 912			
MS10 - I	Takeaki Yamazaki	<i>A generalization of the Aluthge transformation and its properties</i>	
	Xiao-Dong Zhang	<i>Equitable Partition Theorem of Tensors and Spectrum of Generalized Power Hypergraphs</i>	
	Gabriel Larotonda	<i>Norm-preserving dilations and its applications to optimal paths in canonical sphere bundles</i>	
	Yang-Fei Jing	<i>Strategies for handling the loss of orthogonality in the BCG-like methods</i>	
MS10 - II Monday 1:50pm-3:20pm Room 912			
MS10 - II	Qing-Wen Wang	<i>The restricted singular value decomposition of a tensor over the quaternion algebra</i>	
	Pedro Massey	<i>Generalized frame operator distance problems</i>	
	Tin-Yau Tam	<i>On two determinantal inequalities of Matic and Choi</i>	
MS10 - III Tuesday 10:00am-12:00pm Room 912			
MS10 - III	Dominique Guillot	<i>Totally nonnegative GCD matrices and kernels</i>	
	Yang Zhang	<i>Consistency of quaternion matrix equations $\\$AX^{\star}XB=C\\$ and $\\$X-AX^{\star}B=C\\$</i>	
MS11		Matrix Techniques in Operator Theory and Operator Algebras	
MS11 - I Monday 10:00am-12:00pm Room 908			
MS11 - 1	Igor Klep	<i>Matrix Pencils and Factorization of Noncommutative Polynomials</i>	
	Michael T. Jury, Robert T.W. Martin	<i>Fatou's Theorem and Lebesgue Decomposition for Non-Commutative Measures</i>	
	James Eldred Pascoe	<i>Computing Matrix Algebra Dimension and Other Exotic Applications of the Pick Matrix</i>	
	Miklós Pálfia, Yongdo Lim	<i>Sturm's Law of Large Numbers for the L1-Karcher Mean of Positive Operators</i>	
MS11 - II Tuesday 10:00am-12:00pm Room 908			
MS11 - II	DB Janse van Rensburg	<i>Canonical Form for H-Symplectic Matrices</i>	
	Lawrence Fialkow	<i>The Core Variety and Representing Measures in the Truncated Moment Problem</i>	
	Nir Cohen	<i>The Role of LPU- Decomposition in the Triangular Completion Problem in Banach</i>	
	Hugo J Woerdeman	<i>Real zero polynomials and a Horn's problem</i>	

MS12		M-matrices and Inverse M-matrices: Applications and Generalizations	
MS12 -I Tuesday 2:50pm– 4:20pm Room 911			
MS12 - I	KC Sivakumar	<i>M-matrices, inverse m-matrices and their extensions: some new results</i>	
	Margarida Mitjana	<i>Eigenvalues with respect to a weight for discrete elliptic boundary value problems</i>	
	Andres Encinas	<i>Green functions for boundary value problems on product networks</i>	
MS12 -II Wednesday 10am-12am Room 911			
MS12 - II	Minnie Catral	<i>Group inverses of m-matrices and applications to finite markov chains</i>	
	Angeles Carmona	<i>Discrete trace function and poincaré inequality for the study of some linear systems</i>	
	Michael Tsatsomeros	<i>Subtangentiality</i>	
	Daniel Szyld	<i>On the spectrum of a class of bipartite matrices</i>	
MS13		Multilinear Algebra and Tensor Spaces	
MS 13 – I Friday – 10:00am-12:00pm Room 913			
MS13- I	Austin Benson	<i>Three hypergraph eigenvector centralities</i>	
	David Gleich	<i>Multilinear algebra and tensor methods in network alignment</i>	
	Olgica Milenkovic	<i>Online convex dictionary learning</i>	
	Grey Ballard	<i>Parallel algorithms for tensor decompositions</i>	
MS14		Nonnegative Inverse Spectral Problems	
MS14 – I Tuesday 2:50pm-4:20pm Room 913			
MS14 - I	Helena Smigoc	<i>Diagonalizable realizability in the Nonnegative Inverse Eigenvalue Problem</i>	
	Carlos Marijuán	<i>Perturbation of universally realizable spectra</i>	
	Pietro Paparella	<i>Perron similarities and the nonnegative inverse eigenvalue problem</i>	
MS14 – II Thursday 2:50pm-4:20pm Room 913			
MS14 - II	Roberto Canogar	<i>The Nonnegative Inverse Eigenvalue Problem is NP-hard</i>	
	Richard Ellard	<i>Newton-like inequalities and their role in nonnegative inverse spectral problems</i>	
	Bassam Mourad	<i>On the doubly stochastic inverse spectral problem</i>	
MS14 – III Friday 1:50pm-3:20pm Room 913			
MS14 - III	Ana Julio	<i>Centrosymmetric nonnegative realization of spectra</i>	
	Raphael Loewy	<i>On Spectra of nonnegative symmetric 5x5 matrices</i>	
	Ricardo Soto	<i>Toeplitz nonnegative realization of spectra via companion matrices</i>	

MS15		Numerical Approaches for Solving Large-Scale Sparse Systems	
		MS15 – I Monday 10am-12am Room 911	
MS15 - I	Avram Sidi	<i>Recent developments in vector extrapolation methods</i>	
	Juan Carlos Cabral	<i>On the adaptive switching controller for avoiding stagnation on restarting gmres</i>	
	Amaury Alvarez Cruz	<i>Improving Ultra Weak Variational Formulation with ray tracing method for the mild slope equation</i>	
	Pedro Torres	<i>On adaptive block algorithm for symmetric linear system</i>	
		MS15 – II Tuesday 10am-12am Room 911	
MS15 - II	Marcus Sarkis	<i>Robust Model Reduction for High-contrast Problems</i>	
	Xiao-Chuan Cai	<i>Time-parallel Schwarz algorithms for PDEs</i>	
	Zlatko Drmac	<i>New developments of the Discrete Empirical Interpolation Method</i>	
	Daniel Szyld	<i>Asynchronous optimized Schwarz methods for the solution of PDEs on bounded</i>	
MS16		Perturbations of matrix eigenstructures	
		MS16 – I Thursday 10:00am-12:00pm Room 911	
MS16 - I	Vladimir Sergeichuk	<i>Miniversal deformations and closure graphs</i>	
	Stefan Johansson	<i>MATLAB tools for computing canonical structure information</i>	
	Javier Perez	<i>Structured perturbations of linearized structured matrix polynomials</i>	
	Amaury Alvarez Cruz	<i>Applications of Generalized Jordan chain in the systems of conservation laws.</i>	
		MS16 – II Friday 10:00am-12:00pm Room 911	
MS16 - II	Volker Mehrmann	<i>Perturbation theory for nonlinear parametric eigenvalue problems with application to stability analysis</i>	
	Juliana Vianna Valerio	<i>Computation of the Spectrum of Viscous and Viscoelastic Flows.</i>	
	Heike Fassbender	<i>On the conditioning of factors in the SR decomposition</i>	
	Andrii Dmytryshyn	<i>Perturbations of matrix polynomial linearizations</i>	

MS17		Solving large linear systems from oil reservoir simulation
MS 17 - I Wednesday 10am-12am Room 912		
MS17 - I	Moisés Ceni de Almeida	<i>Block approximate inverse preconditioner</i>
	Mateus Oliveira de Figueiredo	<i>Additive multiscale preconditioner applied to geomechanics</i>
	Leonardo Muniz de Lima & Lucia Catabriga	<i>An alternative approach to preconditioned gmres for parallel CFD problems approximated by finite element method</i>
	Adriano M. A. Côrtes	<i>A scalable block-preconditioning strategy for divergence-conforming b-spline discretizations</i>
MS18		Spectral Graph Theory
MS18 - I Monday 3:50pm-5:20pm Room 1013		
MS18 - I	Jack H. Koolen	<i>Some remarks on systems of equiangular lines</i>
	Irene Sciriha	<i>Graphs with Common Nullspace Vectors</i>
	Celso Marques da Silva Junior	<i>Multiplicities of distance Laplacian eigenvalues</i>
MS18 - II Tuesday 2:50pm-4:20pm Room 1013		
MS18 - II	Vladimir Nikiforov	<i>Spectral norm and spectral radius of hypergraphs</i>
	Hiroshi Nozaki	<i>Linear programming bounds for regular uniform hypergraphs</i>
	Yen-Jen Cheng	<i>Addressing problem and the distance matrix of a graph</i>
MS18 - III Wednesday 10:00pm-12:00pm Room 1013		
MS18 - III	Francesco Belardo	<i>Laplacian, Subdivision and Line graph of loopless Weighted graphs</i>
	Aida Abiad	<i>A characterization and an application of weight-regular partitions of graphs</i>
	Dominique Guillot	<i>The critical exponent: a novel graph invariant</i>
	Carla Silva Oliveira	<i>Q-integral graphs with at most two vertices of degree greater than or equal to three</i>
MS 18 - IV Thursday 2:50pm-4:20pm Room 1013		
MS18 - IV	Wayne Barrett	<i>Spanning 2-Forests, Resistance Distance, and the Laplacian Matrix</i>
	Israel Rocha	<i>Sum of Laplacian Eigenvalues of Random Graphs</i>
	Claudia Marcela Justel	<i>Integer Laplacian Eigenvalues of Chordal Graphs</i>
MS 18 - V Friday 1:50pm-3:20pm Room 1013		
MS18 - V	Daniel Alejandro Jaume	<i>Determinant and inverse of nonsingular 2-block-circulant matrices</i>
	Sebastian Cioaba	<i>The smallest eigenvalues of Hamming, Johnson graphs and other graphs</i>

MS19	Spectral inequalities	
	MS19 – I Monday 1:50pm-3:20pm Room 911	
MS19 - I	Rute Lemos	<i>Spectral inequalities for matrix means</i>
	Lorenzo Ciardo	<i>A Combinatorial Fiedler Theory for Trees</i>
	Enide Andrade	<i>New Bounds for the Signless Laplacian Spread</i>
	MS19 – II Thursday 1:50pm-3:20pm Room 911	
MS19 - II	Natália Bebiano	<i>Maximum entropy principle and Landau free energy inequality</i>
	David Sossa	<i>Extremal problems involving the two largest complementarity eigenvalues of a</i>
	María Robbiano	<i>New lower bounds for the energy of matrices and graphs</i>
	MS19 – III Friday 1:50pm-3:20pm Room 911	
MS19 - III	Guilherme Porto	<i>On Nordhaus-Gaddum type inequalities for Q_n</i>
	Maria Aguiéiras	<i>Upper bounds for signless laplacian index</i>
	Leonardo Lima	<i>Inequalities for the largest Laplacian eigenvalue of a graph and its complement</i>
MS20	Symbolic-numeric methods in Matrix Theory	
	MS20 – I Thursday 10am-12am Room 909	
MS20 - I	Dingkang Wang	<i>An extended GCD algorithm for parametric univariate polynomials</i>
	Zhen-Tao He	<i>The solvability and general solution of a system of quaternion matrix equations</i>
	Huihui Zhu	<i>Weighted Pseudo Core Inverses</i>
	Yan-Fei Jing	<i>Recent progress on deflated block conjugate gradient method</i>
	MS20 – II Friday 10am-12am Room 909	
MS20 - II	Tongsong Jiang	<i>Algebraic Techniques For Schrodinger Equations In Quaternionic And Split</i>
	Yang Zhang	<i>Consistency of Split Quaternion Matrix Equations $AX^{\star}XB=CY+D$ and $AX-XYB=C$</i>
	Shihua Fu	<i>A Matrix Approach To The Input-Output Decoupling Problem Of Boolean Control</i>
MS21	Zero Forcing, Propagation, Throttling: Variations and Applications	
	MS21- I Tuesday 2:50pm-4:20pm Room 1014	
MS21 - I	Eunjeong Yi	<i>On metric dimension and zero forcing number of some line graphs</i>
	Cong X. Kang	<i>On metric dimension, strong metric dimension, and zero forcing number of graphs</i>
	Carolyn Reinhart	<i>New results on throttling for the game of cops and robbers</i>
	MS21- II Thursday 2:50pm-4:20pm Room 1014	
MS21 - II	Mary Flagg	<i>Rigid shortest linkages and matrix eigenvalue multiplicities</i>
	Franklin Kenter	<i>Leaky zero forcing, theory and computation of a new zero forcing variation</i>
	Boris Brimkov	<i>Zero forcing polynomial of a graph</i>
	MS21- III Friday 1:50pm-3:20pm Room 1014	
MS21 - III	Jesse Geneson	<i>Propagation time for probabilistic zero forcing</i>
	Violeta Vasilevska	<i>Nordhaus-Gaddum sum bounds for power domination</i>
	Beth Bjorkman	<i>Infectious power domination for hypergraphs</i>

CT1	APPLICATIONS OF LINEAR ALGEBRA	
	<i>Thursday, July 11, 10-12 AM, ROOM 1013</i>	
	Using quantum state discrimination strategies to attack quantum-key distribution protocols	<i>Rodrigo Otávio Gonçalves Chaves</i>
	Graovac-Gorbani index for bicyclic graphs with no pendant vertices	<i>Diego Pacheco</i>
	A Decoding Algorithm for Linear Codes in Z_{p^r} over the Erasure Channel	<i>Diego Napp</i>

CT1	APPLICATIONS OF LINEAR ALGEBRA	
	<i>Friday, July 12, 10-12 AM, ROOM 1013</i>	
	Realizable lists via the spectra of structured block matrices	<i>Cristina Beatriz Manzaneda Herrera</i>
	Antieigenvalues of Multiparameter Eigenvalue Problems	<i>Niranjan Bora</i>
	On Total Colouring Algorithms for Cayley Graphs	<i>Caroline Patrão</i>
	Rank Distance Sheds Light on Genome Evolution	<i>João Meidanis</i>

CT2	COMBINATORICS AND MATRICES	
	<i>Monday, July 08, 10-12 AM, ROOM 910</i>	
	Failed zero forcing, maximum nullity, and other graph parameters	<i>Prince Allan B. Pelayo</i>
	(0,1)-matrices and the t-term rank	<i>Rosário Fernandes</i>
	Gram Mates and their Application	<i>Sooyeong Kim</i>
	Maximum nullity and zero forcing of circulant graphs	<i>Brenda Kroschel</i>

CT3	GRAPHS AND MATRICES	
	<i>Monday, July 08, 10:00-12:00 AM, ROOM 913</i>	
	Graphs with few distinct Siedel eigenvalues	<i>Miriam Del Milagro Abdon</i>
	Integral cographs	<i>Fernando Tura</i>
	Integral Unicyclic Graphs	<i>Rodrigo Orsini Braga</i>
	Null decomposition of unicyclic graphs	<i>Maikon Machado Toledo</i>

GRAPHS AND MATRICES		
<i>Tuesday, July 09, 10:00-12:00 AM, ROOM 1013</i>		
CT3	Upper bound for the trace norm of the Laplacian matrix of a digraph and normally regular digraphs	<i>Natalia Agudelo M</i>
	Spectral norm of oriented graphs	<i>Juan Daniel Monsalve Aristizábal</i>
	The spectrum of generalized power hypergraphs	<i>Kauê da Rosa Cardoso</i>
	Spectral study of hypergraphs	<i>Anirban Banerjee</i>

GRAPHS AND MATRICES		
<i>Wednesday, July 10, 10:00-12:00 AM, ROOM 908</i>		
CT3	On the exactness of a graph	<i>Jorge Ferreira Alencar Lima</i>
	Characterizing threshold graphs with k main signless Laplacian eigenvalues	<i>Cybele T. M. Vinaagre</i>
	Fractional revival of threshold graphs under Laplacian dynamics	<i>Xiaohong Zhang</i>

MATRIX THEORY		
<i>Monday, July 08, 10:00-12:00 AM, ROOM 1013</i>		
CT4	Karamardian Matrices - A Generalization of Q-matrices	<i>Sushmitha P</i>
	Diagonal entries of the combined matrix of sign-regular matrices	<i>Maximo Santana</i>
	Generalizing the bottleneck matrix	<i>Enric Monsó Burgués</i>
	Superregular matrices over small finite fields	<i>Paulo Jose Fernandes Almeida</i>

MATRIX THEORY		
<i>Monday, July 08, 1:50-3:20 PM, ROOM 1013</i>		
CT4	Conditionally negative definite matrix valued kernels on Euclidean spaces.	<i>Jean Carlo Guella</i>
	Faces of the 5x5 completely positive cone	<i>Qinghong Zhang</i>
	Recent advances on accurate computations with subclasses of totally positive matrices	<i>Juan M. Peña</i>

CT4	MATRIX THEORY	
	<i>Tuesday, July 09, 2:50-4:20 PM, ROOM 912</i>	
	Approximate reducibility of unitary subgroups	<i>Bojan Kuzma</i>
	The group inverse of some singular circulant matrices	<i>María José Jiménez Jiménez</i>

CT4	MATRIX THEORY	
	<i>Thursday, July 11, 2:50-4:20 PM, ROOM 908</i>	
	Triangular and symmetric Splitting Method for the Solution of Regularized Linear System-Toeplitz Stochastic matrices	<i>Rajaiah Dasari</i>
	Structured Distance to Normality of Tridiagonal Matrices	<i>Susana Margarida Figueiredo de Sousa Borges Furtado</i>
	Matrices whose powers eventually have certain properties	<i>Chao Ma</i>

CT5	NUMERICAL LINEAR ALGEBRA	
	<i>Thursday, July 11, 10:00-12:00 AM, ROOM 912</i>	
	Applications of Generalized Jordan chain in the systems of conservation laws.	<i>Amaury Alvarez Cruz</i>
	Frame potentials minimization in complex spaces - analytical and numerical results	<i>Radel Ben-Av</i>
	Complex step approximation for higher order Fréchet derivative of matrix functions	<i>Bahar Arslan</i>
	Schultz matrix iteration based method for stable solution of discrete ill-posed problems	<i>Everton Boos</i>

CT6	POLYNOMIALS AND MATRICES	
	<i>Friday, July 12, 1:50-15:20 AM, ROOM 912</i>	
	Computation of invariant pairs for the nonlinear eigenvalue problem via moment method	<i>Esteban Segura Ugalde</i>
	Structured linearizations for structured Matrix Polynomials	<i>Philip Saltenberger</i>

CT7	THEORY OF OPERATORS	
	<i>Thursday, July 11, 10:00-12:00 AM, ROOM 913</i>	
	Jensen type inequality for operator superquadratic functions and its applications to mean inequalities	<i>Jadranka Micic Hot</i>
	Characterizations of normal operators, selfadjoint operators in terms of operator inequalities	<i>Ameur Seddik</i>
	Estimations of the weighted power mean by the Heron mean and related inequalities for determinants and traces	<i>Masatoshi Ito</i>
New examples of extremal positive linear maps	<i>Klemen Sivic</i>	

CT8	TOPICS IN LINEAR ALGEBRA	
	<i>Monday, July 08, 3:50-5:20 PM, ROOM 912</i>	
	Three approaches to extremal generalized hexagons	<i>Bart De Bruyn</i>
	The complete characterization of the minimum size supertail	<i>Esmeralda Lucilla Nastase</i>
	Matrix properties of generalized Fibonacci fundamental system and applications to generalized Fibonacci and Pell numbers	<i>Elen Viviani Pereira Spreafico</i>