

TA1 (Room 11.1.3)	TA2 (Room 11.1.10)	TA3 (Room 11.1.2)	TA4 (Room 11.1.12)
11:40-12:55	11:40-12:55	11:40-12:55	11:40-12:55
Special Session "Spectral Graph Theory and its Applications"	Special Session "Matrices and Applications I"	Contributed session "Network optimization and applications"	Contributed session "Dynamic systems and control"
organized by Irene Sciriha	organized by Enide Andrade e Rute Lemos		
Chair: Irene Sciriha	Chair: Enide Andrade	Chair: Paula Rama	Chair: Andrey Sarychev
1. Alexander Farrugia "The resolvent energy matrix of a graph"	1. Lorenzo Ciardo "Combinatorial Perron Value: further developments"	1. Eloísa Macedo "Price of anarchy according to different traffic assignment criteria"	1. Ewa Pawluszewicz "Generalized q-optimal control problem"
2. Maurizio Brunetti "Connected Laplacian cospectral mates of signed ∞ -graphs"	2. Rute Lemos "Some log-majorizations and a determinantal inequality"	2. Jain Ekta "An improved algorithms for two stage time minimization assignment problem"	2. Olga Tsekhan "On the problem of spectrum control for linear stationary singularly perturbed system with delay"
3. Irene Sciriha "An Algebraic Approach to Regular Two—Graphs"	3. Graça Soares "Some new aspects on the Krein C-determinantal range"	3. Paula Rama "Extremal results on the modified Schultz index"	3. Andrey Sarychev "Cyclic Vectors of Associative Matrix Algebras and Applications to Controllability"
TB1 (Room 11.1.3)	TB2 (Room 11.1.10)	TB3 (Room 11.1.2)	TB4 (Room 11.1.12)
14:10-15:50	14:10-15:50	14:10-15:50	14:10-15:50
Contributed Session " Graph Spectra I"	Contributed session "Convolutional Codes"	Contributed Session "Theory and methods of continuous Optimization"	Contributed session "Algebra, Systems and Matrices"
Chair: Milica Anđelić	Chair: Rita Simões	Chair: Olga Kostyukova	Chair: Imme Van den Berg
1. Cybele T.M.Vinagre "Spectrum, signless Laplacian spectrum and Laplacian spectrum of the complementary prism of a graph"	1. Cláudia Sebastião "Cryptography based on convolutional codes"	1. Ana Luísa Custódio "MultiGLODS: Global and Local Multiobjective Optimization using Direct Search"	1. Diego Bravo "Energy of matrices"
2. Renata R. Del-Vecchio "Spectral properties for the distance matrix of a threshold graph"	2. Conceição Rocha "Noncatastrophic convolutional codes over a finite ring"	2. Mina Saeed Bostanabad "SOS versus SDSOS polynomial optimization"	2. Manuel Guerra " On the structure of the stochastic Lie algebra"
3. Helena Gomes "Spectra and Randić Spectra of Caterpillar Graphs and Applications to the Energy"	3. Marisa Toste "Kernel representation of convolutional codes over finite rings"	3. Berezhnov Daniil "Numerical algorithm for solution of linear bilevel programming problem"	3. Paulo Almeida "Construction of superregular matrices over finite fields"
4. Milica Anđelić "Vertex types in threshold and chain graphs"	4. Rita Simões "Separation set distance for 2D Convolutional Codes"	4. Olga Kostyukova " CQ-free optimality conditions for Copositive programming problems with isolated immobile indices"	4. Imme Van den Berg "A parameter method for solving linear systems with uncertainties"
TC1 (Room 11.1.3)	TC2 (Room 11.1.10)	TC3 (Room 11.1.2)	
16:10-17:00	16:10-17:00	16:10-17:00	
Contributed session "Discrete Optimization"	Contributed session "Graph models in biochemistry"	Contributed session "Optimization models in health and urban services"	
Chair: Carlos Luz	Chair: Inês Soares	Chair: Eugenia Captivo	
1. Marta Pascoal " Pairs of paths aiming to minimize the number of common arc labels and the cost-A bicriteria approach"	1. Claudio A. Piedade "Mathematical tools for solving the problem of Viral Capsid Disassembly"	1. Ana Jorge "Waste Collection Circuits Planning with Multiple Criteria"	
2. Carlos Luz "Necessary and sufficient conditions for being a convex-QP graph"	2. Inês Soares "A Dawson-like clustering of human mitochondrial DNA sequences based on protein coding region"	2. Eugenia Captivo "Optimizing the Master Surgery Schedule in a Private Hospital"	

FA1 (Room 11.1.3)	FA2 (Room 11.1.10)	FA3 (Room 11.1.2)	FA4 (Room 11.1.12)
11:20-13:00	11:20-13:00	11:20-13:00	11:20-13:00
Contributed Session "Graph Spectra II"	Contributed session "Graph Theory"	Contributed session "Optimization methods and applications I"	Contributed session "Graphs and Applications"
Chair: Margarida Mitjana	Chair: Liliana Costa	Chair: Alexander Dudin	Chair: Olga O'Mahony
1. Ismael G. Yero "Relationships between independence and total Roman domination in graphs"	1. Jonathan Rodrigues "On line graphs with maximum energy"	1. Immanuel Bomze "Robust clustering in social networks"	1. Imene Khames "On bivalent and trivalent graphs"
2. Miquel Àngel Fiol "The spectra of lifted graphs and digraphs"	2. Diego Belay "A note on trees with the same algebraic connectivity"	2. Gerhard-Wilhelm Weber "An Optimal Consumption Problem by the Tools of Maximum Principle for a Markov Regime-Switching Jump-Diffusion Model with Delay"	2. Lilian Markenzon "A Characterization of Block-Indifference Graphs"
3. Marsha Kleinbauer "Spectral moment equations and subgraph counting"	3. Daniel A. Jaume "Null decomposition of trees and its applications"	3. Cristina Requejo "Integer programming formulations for the zero forcing number"	3. Olga O'Mahony "Edge-minimal graphs of exponent 2"
4. Margarida Mitjana "The separation of variables for product networks"	4. Liliana Costa "On graph isomorphisms and polytope skeletons"	4. Alexander Dudin "Optimization of threshold control by operation of nodes of sensor networks with energy harvesting"	
FB1 (Room 11.1.3)	FB2 (Room 11.1.10)	FB3 (Room 11.1.2)	FB4 (Room 11.1.12)
16:20-18:00 (Room 11.1.3)	16:20-18:00	16:20-18:00	16:20-18:00
Contributed session "Graph Spectra III"	Contributed session "Combinatorics"	Contributed session "Graphs and applications"	Special Session "Bruhat Order "
			organized by R.Fernandes and H.Cruz
Chair: Francesco Belardo	Chair: Helmuth Malonek	Chair: Luís Gouveia	Chair: Rosário Fernandes
1. Celso Marques da Silva Junior "Some Spectral Properties of Spider Graphs"	1. Rui Duarte "Between Ish and Shi"	1. Ricardo Pereira "On the use of graphs for the study of structured control systems"	1. Geir Dahl "An extension of the Bruhat order"
2. Kenneth Dadedzi "On the spectrum of random trees"	2. Jelena Sedlar "On the consecutive values of Wiener index for trees on n vertices"	2. Sergey N. Dorogovtsev "Graph theory models for evolving manifolds"	2. Ricardo Mamede "Chains and antichains in the Bruhat order for classes of (0,1)-matrices"
3. Marsha Kleinbauer "The Graph Spectra and Spectral Moments of Random Graphs"	3. Mohammad A. Iranmanesh "On symmetry-moderated Wiener index of some graphs"	3. Rogério Seródio "Convertibility of Hessenberg type matrices arising from graph enumerations"	3. Rosário Fernandes "Latin Squares and the Bruhat order"
4. Francesco Belardo "Generalizing Domingos Cardoso's result to the spectra of signed graphs"	4. Helmut Malonek "From the hypercomplex Cauchy kernel to number sequences and beyond "	4. Luís Gouveia "The Network Design Problem with Vulnerability Constraints (motivation and relation with other problems)"	4. Henrique F. da Cruz "The Bruhat order in classes of matrices of zeros and ones with prescribed row and column sum vectors"
			5. Susana Furtado "Bruhat order for the class of symmetric (0,1)-matrices with prescribed row sum vector"
SA1 (Room 11.1.3)	SA2 (Room 11.1.10)	SA3 (Room 11.1.2)	SA4
11:30-12:45	11:30-12:45	11:30-12:45	11:30-12:45
Contributed session "Graph Spectra IV"	Special Session "Matrices and Applications II"	Contributed session "Optimization methods and applications II"	Contributed session "Codes in Graphs"
	organized by Raquel Pinto and Diego Napp		
Chair: Hatice Topcu	Chair: Diego Napp	Chair: Agostinho Agra	Chair: Paolo Vettori
1. Debdas Paul "Comparison between combinatorial and spectral approaches in identifying the largest bipartite subgraphs of a graph"	1. Ángela Barbero "On MDS convolutional codes over $GF(2^m)$ "	1. Alexander Plakhov "The Kakeya needle problem, Besikovitch, and Newton's problem of minimal resistance"	1. Cristina Dalfó "Characterizing identifying codes from the spectrum of a graph or digraph"
2. Majid Arezoomand "On the eigenvalues of quasi-abelian n-Cayley graphs"	2. Øyvind Ytrehus "More on MDS convolutional codes over $GF(2^m)$ "	2. Seiken Saito " On the radius of convergence of the Ihara zeta function"	2. Berenice Martín-Barona "Identifying codes in graphs"
3. Hatice Topcu "On the graphs with all but at most three eigenvalues equal to -1 and 0"	3. Alicia Roca "Combinatorial results in the lattice of characteristic subspaces"	3. Agostinho Agra " Lagrangian approaches for a class of robust optimization problems"	3. Paolo Vettori "Linear convolutional network codes: coding for graphs, decoding on graphs"