

Tuesday, 1 December (Morning)

Mathematical Physics: Session 1	First Name	Last Name	Title
11:00 - 11:20	Jie	Hu	Recurrence coefficients of orthogonal polynomials with different weights and painleve Equations
11:20 - 11:40	Nathaniel	Henman	Surface flexibility delays droplet impact and entraps more air
11:40 - 12:00	Faedi	Loulidi	Incompatibility in quantum information theory
12:00 - 12:20	Diego	Vidal-Cruzprieto	State Extension for Quantum Field Theory in Curved Spacetime
12:20 - 12:40	Paz	Albares	Rational soliton solutions for the derivative non-linear Schrödinger equation

Probability and Statistics: Session 1	First Name	Last Name	Title
11:00 - 11:20	Iryna	Golichenko	Extrapolation problem for periodically correlated stochastic sequences with missing observations
11:20 - 11:40	Zororo	Makumbe	Decomposition of the option pricing formula for jump-diffusion stochastic volatility models with infinite activity jumps
11:40 - 12:00	Elaheh	Lotfian	A Multi-objective Sampling Design for Spatial Prediction Problem
12:00 - 12:20	María	Jaenada	Robust regularization methods based on Rényi pseudodistance loss.
12:20 - 12:40	Lucía	Bautista Bárcena	Opportunistic maintenance under periodic inspections in heterogeneous complex systems
12:40 - 13:00	Gregor	Pasemann	Diffusivity estimation for activator-inhibitor models: theory and application to intracellular dynamics of the actin cytoskeleton

Analysis and Operator Algebras: Session 1	First Name	Last Name	Title
11:00 - 11:20	Paul	Herstedt	AT-algebras associated to zero-dimensional dynamical systems
11:20 - 11:40	Jesús	Oliva-Maza	On the connection between Hardy kernels and reproducing kernels
11:40 - 12:00	María de Gádor	Cabrera Padilla	Topological reflexivity of the isometry groups of $C(Y)$ -valued Lipschitz algebras
12:00 - 12:20	Alberto	Salguero Alarcón	The attack of axiomatics in $C(K)$ -spaces
12:20 - 12:40	María Luisa	Castillo Godoy	Hyperreflexivity of the space of module homomorphisms between non-commutative L^p -spaces

Geometry: Session 1	First Name	Last Name	Title
11:00 - 11:20	Raúl	Martínez-Bohórquez	On invariant operations of a manifold with a linear connection and an orientation
11:20 - 11:40	Eduardo	Lucas Marín	On discrete isoperimetric type inequalities
11:40 - 12:00	Francisco	Marín Sola	On Grünbaum Type Inequalities
12:00 - 12:20	Manuel	Mellado Cuerno	Convergence of manifolds with totally bounded curvature
12:20 - 12:40	José Luis	Carmona Jiménez	The Ambrose-Singer Theorem for general homogeneous manifolds with applications to symplectic geometry

PDEs: Session 1	First Name	Last Name	Title
11:00 - 11:20	Juan Carlos	Cantero Guardado	Global-in-time $C^{1+\gamma}$ regularity for Cauchy patches
11:20 - 11:40	Claudia	García	Time periodic solutions for the 3D quasi-geostrophic system
11:40 - 12:00	Anton	Gilev	Boundary value problems for a loaded hyperbolic equation
12:00 - 12:20	Jennifer	Weissen	Derivation of the advection-diffusion equation and application to material flow and swarming

Combinatorics: Session 1	First Name	Last Name	Title
11:00 - 11:20	Yago	Moreno Alonso	Distinct Distances With ℓ_p Metrics
11:20 - 11:40	Alejandra	Martínez Moraian	On circles enclosing many points
11:40 - 12:00	Xinyi	Xu	Correspondence colouring of multigraphs
12:00 - 12:20	Aranka	Hrušková	Constructing balanced coloured orientations of transitive graphs as a factor of iid
12:20 - 12:40	Samuel	Mohr	Rooted Structures in Graphs
12:40 - 13:00	Ahmad	Alkasasbeh	Applying Skolem Sequences to Gracefully Label New Families of Triangular Windmills

Algebra: Session 1	First Name	Last Name	Title
11:00 - 11:20	Martin	van Beek	Fusion Systems with few essential subgroups
11:20 - 11:40	Rubén	Blasco García	On the isomorphism problem for even Artin groups
11:40 - 12:00	Andoni	Zozaya	Standard Hausdorff spectrum of profinite $F_p[[t]]$ -analytic groups
12:00 - 12:20	Yunxi	Shi	Axial algebras of Monster type $(2\eta, \eta)$ for orthogonal groups over \mathbb{F}_2
12:20 - 12:40	Víctor	Sotomayor	On the prime graph associated with class sizes of a finite group
12:40 - 13:00	Andrea	Thevis	p -Origamis: Strata, Veech Groups and Sums of Lyapunov Exponents

Algebraic and Complex Geometry: Session 1	First Name	Last Name	Title
11:00 - 11:20	Christina	Katsamaki	On the geometry and the topology of parametric curves
11:20 - 11:40	Emily	Quintero	Affine equivalences of trigonometric curves
11:40 - 12:00	Roser	Homs Pons	Primary ideals and their differential equations
12:00 - 12:20	María Dolores	Gómez Olvera	Secure Group Communications using Group Rings
12:20 - 12:40	Patricia	Pascual- Ortigosa	Polarization, depolarization and support posets applied to System Reliability

Tuesday, 1 December (Afternoon)

Mathematical Physics: Session 2	First Name	Last Name	Title
15:00 - 15:20	Razvan-Dumitru	Ceuca	Cubic microlattices embedded in nematic liquid crystals: a Landau-de Gennes study
15:20 - 15:40	Sandeep	Kumar	Recent progress on the vortex filament equation for regular polygons
15:40 - 16:00	Luca	Schiavone	Covariant brackets in particle dynamics and first order Hamiltonian field theories
16:00 - 16:20	Manuel	Lainz	Principles of least action in physics and their geometry
16:20 - 16:40	Hassan	Attarchi	Ehrenfest Wind-Tree Model is Dynamically Richer Than the Lorentz Gas

Probability and Statistics: Session 2	First Name	Last Name	Title
15:00 - 15:20	Olga	Gutan	When statistical analysis fails: an empirical analysis of the natural environment and suicide in the United States
15:20 - 15:40	Simón	Rodríguez Santana	Functional space inference with Implicit Processes in Bayesian Neural Networks
15:40 - 16:00	David	Dalton	Cardiac-Mechanic Parameter Inference using Statistical Emulation
16:00 - 16:20	Paulo	De Oliveira	Challenges in the nowadays, disabilities people, sex, race, income and COVID-19, under the mathematical and probabilistic

Analysis and Operator Algebras: Session 2	First Name	Last Name	Title
15:00 - 15:20	Vinícius	Miranda	The property (d) in Banach lattices and the alcc operators
15:20 - 15:40	Alejandra	Cáceres Rigo	An A-tight - A-minimal dichotomy theorem for Banach spaces
15:40 - 16:00	José David	Rodríguez Abellán	Free Banach lattices
16:00 - 16:20	Javier	González Doña	Invariant subspaces for positive operators on Banach spaces with unconditional basis

16:20 - 16:40	Miguel	García Bravo	Normal tilings of a Banach space and its ball
16:40 - 17:00	María de Nazaret	Cueto Avellaneda	Surjective isometries between the unitary sets of two unital JB*-algebras

Geometry: Session 2	First Name	Last Name	Title
15:00 - 15:20	Ildefonso	Castro_Infantes	Recent results on interpolation by minimal surfaces
15:20 - 15:40	José Manuel	Fernández- Barroso	On inaudibility of Jacobi operator related properties on closed Riemannian manifolds
15:40 - 16:00	David	Rochera	On isoptic curves and isochordal-viewed curves
16:00 - 16:20	Henriette	Lipschütz	Curves and surfaces from magnetic spheres
16:20 - 16:40	Xiaolong	Han	L2 Harmonic 1-form, minimal surface and Thurston norm of hyperbolic manifolds

PDEs: Session 2	First Name	Last Name	Title
15:00 - 15:20	Damià	Torres- Latorre	Boundary Harnack inequalities with right hand side
15:20 - 15:40	Iñigo	Erneta	Boundedness of stable solutions to semilinear equations in low dimensions
15:40 - 16:00	Nikita	Simonov	Stability of Gagliardo-Nirenberg Inequalities
16:00 - 16:20	Rakesh	Arora	Regularity results for a class of nonlinear fractional Laplacian and singular problems
16:20 - 16:40	Amila	Muthunayake	Modeling the effects of trait-mediated dispersal on coexistence of mutualists
16:40 - 17:00	Juan-Carlos	Felipe- Navarro	The Neumann problem for the fractional Laplacian: boundary regularity

Combinatorics: Session 2	First Name	Last Name	Title
15:00 - 15:20	Satvik	Singh	A graphical calculus for integration over random diagonal unitary matrices
15:20 - 15:40	Diego	Millan Berdasco	Towards a partial solution of the decomposition number problem for symmetric grojps
15:40 - 16:00	Arturo	Rodriguez Fanlo	Model theory and metric approximate subgroups
16:00 - 16:20	Yangxinyu	Xie	Matrix Rigidity, Algebraic and Combinatorial Techniques
16:20 - 16:40	Natalie	Behague	Synchronizing Times for k-sets in Automata

Algebra: Session 2	First Name	Last Name	Title
15:00 - 15:20	Jorge	Roldán-López	Different approaches for quadratic 2-step nilpotent Lie algebras
15:20 - 15:40	María de la Paz	Tirado Hernández	On the bracket of integrable derivations
15:40 - 16:00	Mehsin	Jabel Atteya	Higher Derivation with Lie Structure of Associative Rings
16:00 - 16:20	Felipe	Albino dos Santos	On the super elliptic affine Lie algebras
16:20 - 16:40	Greta	Coraglia	How to catch a non-set
16:40 - 17:00	Gihanee	Senadheera	Extending Turing Reducibility and Incomparable Turing Degree, Ideas to PACi Learning Model

Algebraic and Complex Geometry: Session 2	First Name	Last Name	Title
15:00 - 15:20	Ángel	González-Prieto	Character varieties of torus knots
15:20 - 15:40	Roberto	Giménez Conejero	Monodromy of germs of analytic functions without fixed points
15:40 - 16:00	Leonardo	Roa Leguizamon	Segre Invariant and rank 2 Vector Bundles on Surfaces
16:00 - 16:20	Andrew	Kobin	Stacky curves in characteristic p
16:20 - 16:40	Guillermo	Gallego	Universal spectral covers and the Hitchin system
16:40 - 17:00	Andoni	De Arriba De La Hera	$N = 2$ superconformal vertex algebras from Killing spinors: an example of $(0; 2)$ -mirror symmetry

Dynamical Systems and ODEs: Session 1	First Name	Last Name	Title
15:00 - 15:20	Celsa	Pardo Araujo	Probing the precessing bar model for the Galactic warp origin
15:20 - 15:40	David	Martínez Rodríguez	A computational approach to capture the uncertainty of real data: application to breast tumour growth
15:40 - 16:00	Lorenzo	Ruaro	Population dynamics of <i>Ctenosaura bakeri</i>
16:00 - 16:20	Thiago	De Angelis	Global stability and sensitivity of an SQR model with infectivity during quarantine
16:20 - 16:40	Eduardo	Muñoz-Hernández	Subharmonics in a class of planar periodic predator-prey models

Wednesday, 2 December

Analysis and Operator Algebras: Session 3	First Name	Last Name	Title
11:00 - 11:20	Kateryna	Pozharska	Entropy numbers and best approximations of the classes of periodic multivariate functions
11:20 - 11:40	Blanca	Fernández Besoy	Associate spaces and logarithmic interpolation methods
11:40 - 12:00	Alicia	Quero de la Rosa	Numerical index of absolute symmetric norms on the plane
12:00 - 12:20	Christian	Cobollo	On unique extension renormings
12:20 - 12:40	Luis Giraldo	González Ricardo	Logarithmic asymptotic of multi-level Hermite-Padé polynomials
12:40 - 13:00	Óscar	Roldán Blay	Local Bollobás type properties and diagonal operators

Geometry: Session 3	First Name	Last Name	Title
11:00 - 11:20	Robert	Cardona	New topological constructions of steady Euler flows
11:20 - 11:40	Cédric	Oms	On the singular Weinstein conjecture and existence of escape orbits
11:40 - 12:00	James	Kohout	(Non-)unique limits of geometric flows
12:00 - 12:20	Álvaro	Rodríguez Abella	Covariant reduction by fiberwise actions

PDEs: Session 3	First Name	Last Name	Title
11:00 - 11:20	Ivana	Vojnović	H-distributions on Hörmander spaces
11:20 - 11:40	Nevena	Dugandžija	Generalized solution to multidimensional cubic Schrödinger equation with delta potential
11:40 - 12:00	Pablo	Linares	The structure group for quasi-linear SPDEs via universal enveloping algebras
12:00 - 12:20	Antonella	Nastasi	Neumann p -Laplacian problems with a reaction term on metric spaces
12:20 - 12:40	Andrew	Turner	Solvability of boundary value problems for the Schrödinger equation with non-negative potentials

Combinatorics: Session 3	First Name	Last Name	Title
11:00 - 11:20	Marcus	Kühn	Hypergraph decompositions into cycles
11:20 - 11:40	Amarja	Kathapurkar	Embedding spanning trees in dense directed graphs
11:40 - 12:00	Joseph	Hyde	A degree sequence result for 3-uniform hypergraphs
12:00 - 12:20	Nika	Salia	Inverse Turán Numbers
12:20 - 12:40	Stephen	Gould	Almost all optimally coloured complete graphs contain a rainbow Hamilton path

Algebra: Session 3	First Name	Last Name	Title
11:00 - 11:20	Alberto	Daza Garcia	Gradings on a class of structurable algebras related to an hermitian form.
11:20 - 11:40	Jose	Brox	Operator-algebraic elements in prime rings

Dynamical Systems and ODEs: Session 2	First Name	Last Name	Title
11:00 - 11:20	Adam	Ligeza	Hamiltonians of Painlevé IV equation
11:20 - 11:40	Mohamed Abdelhak	Kara	On the growth and fixed points of solutions of linear differential equations with entire coefficients
11:40 - 12:00	Marisa	Cantarino	Anosov endomorphisms on the 2-torus: regularity of foliations and rigidity
12:00 - 12:20	Salvador	Borrós Cullell	Computing Rotation Numbers in the Circle with a New Algorithm
12:20 - 12:40	Fatma Ayca	Cetinkaya	A Uniqueness Theorem for the Solution of a Conformable Inverse Problem

Mathematical Aspects of Computer Sciences: Session 1	First Name	Last Name	Title
11:00 - 11:20	Apostolos	Chalkis	Efficient Sampling from Feasible Sets of SDPs and Volume Approximation
11:20 - 11:40	Raimundo	Saona	Value-Positivity for Matrix Games
11:40 - 12:00	Miguel Ángel	Navarro-Pérez	Flag codes of maximum distance
12:00 - 12:20	Alberto	Pedrouzo Ulloa	Multiquadratic Rings and Oblivious Linear Function Evaluation

Control theory and optimization: Session 1	First Name	Last Name	Title
11:00 - 11:20	Paula	Segura	Solving the length constrained K-Drones Rural Postman Problem
11:20 - 11:40	María Jesús	Gisbert Francés	From the Lipschitz to the Lipschitz lower semicontinuity modulus for linear semi-infinite systems
11:40 - 12:00	Timo	Kreimeier	On Optimizing Piecewise Linear Functions
12:00 - 12:20	Sergio	López Ureña	A Harten's approach to shape optimization
12:20 - 12:40	Janin	Heuer	Global optimisation via the dual SONC cone and linear programming
12:40 - 13:00	Miguel	Reula Martín	On the Distance-Constrained Close Enough Arc Routing Problem

Applied Mathematics: Session 1	First Name	Last Name	Title
11:00 - 11:20	salah	eddargani	A novel normalized B-spline basis for univariate C^2 quartic super-spline spaces and applications
11:20 - 11:40	Olga	Weiß	Structure Exploitation for PDE Constrained Nonsmooth Optimization
11:40 - 12:00	leva	Daužickaitė	Spectral estimates for saddle point matrices arising in weak constraint four-dimensional variational data assimilation
12:00 - 12:20	Héctor	Orera	Accurate computations with totally positive matrices
12:20 - 12:40	Alejandro	Escorihuela Tomás	Compositions of pseudo-symmetric integrators with complex coefficients for the numerical integration of differential equations

Thursday, 3 December

Analysis and Operator Algebras: Session 4	First Name	Last Name	Title
15:00 - 15:20	Constantin	Bilz	Large sets without Fourier restriction theorems
15:20 - 15:40	Mauro	Sanchiz	Weak compactness in variable exponent spaces
15:40 - 16:00	Daniel L.	Rodríguez-Vidanes	Additivity of the families of Darboux-like functions
16:00 - 16:20	Laura	Sánchez-Pascuala Dones	Yano's extrapolation theorem
16:20 - 16:40	Pablo José	Gerlach Mena	Linear and algebraic structures of Anti-M Weierstrass sequences
16:40 - 17:00	Gianmarco	Brocchi	What is Sparse Domination and why is it so plentiful?

Combinatorics: Session 4	First Name	Last Name	Title
15:00 - 15:20	Fabio	Buccoliero	Properties of line graphs and their relations to associated graphs
15:20 - 15:40	Bruno	Ordozgoiti	Signed graphs: theory and applications
15:40 - 16:00	Vincent	Pfenninger	Resilience for Tight Hamiltonicity in Random Hypergraphs
16:00 - 16:20	Alberto	Espuny Díaz	Hamiltonicity in random subgraphs of the hypercube
16:20 - 16:40	Victor	Macia Medina	Lagrangian Khinchin families

Dynamical Systems and ODEs: Session 3	First Name	Last Name	Title
15:00 - 15:20	Mariana	Queiroz Velter	About 4-crossing periodic orbits
15:20 - 15:40	Mia	Jukic	Dynamics on Planar Lattices
16:00 - 16:20	Olena	Atlasiuk	On linear generic inhomogeneous boundary-value problems for differential systems in Sobolev spaces

Algebraic and Complex Geometry: Session 3	First Name	Last Name	Title
15:00 - 15:20	Miruna-Stefana	Sorea	The shapes of level curves of real polynomials near strict local minima
15:20 - 15:40	Matilde	Manzaroli	Real hyperbolic morphisms
15:40 - 16:00	Khazhgali	Kozhasov	Minimality of tensors of fixed multilinear rank
16:00 - 16:20	Abhiram	Natarajan	Betti numbers of random hypersurface arrangements
16:20 - 16:40	Timothy	Duff	Galois/monodromy groups in 3D reconstruction

Control theory and optimization: Session 2	First Name	Last Name	Title
15:00 - 15:20	JOSE ANTONIO	VILLA MORALES	Hierarchical control of the semilinear wave equation
15:20 - 15:40	Verónica	Arroyo Rodríguez	A Data-Driven Method for Formation control of multi-agent systems
15:40 - 16:00	Jon Asier	Bárcena Petisco	Some recent results about the controllability of the heat equation.
16:00 - 16:20	Manuela	Gamonal	A neural network for learning-based shape control of multi-agent systems
16:20 - 16:40	Jacob	Goodman	Geometric Control of Two Quadrotors Carrying a Rigid Rod via Elastic Cables
16:40 - 17:00	Vaibhav Kumar	Jena	Control of wave equations

Topology: Session 1	First Name	Last Name	Title
15:00 - 15:20	Joel	Mitchell	When is the beginning the end?
15:20 - 15:40	Wilson	Forero	The GKT conjecture for discrete decomposition spaces
15:40 - 16:00	Jorge	Becerra	An introduction to knot homology theories
16:00 - 16:20	Daniel	Miguel	Model categories and homotopy theories
16:20 - 16:40	José F.	Gálvez-Rodríguez	Distribution functions and probability measures on linearly ordered topological spaces
16:40 - 17:00	Javier	Aguilar	Induced A_∞ -structures

Applied Mathematics: Session 2	First Name	Last Name	Title
15:00 - 15:20	Fatima-Ezzahra	ABOULKHOU ATEM	Predicting the effect of hyperpressur on the displacement of the basilar membrane in active cochlea
15:20 - 15:40	Fatiha	Kouilily	The influence of an increase of basilar membrane stiffness on the cochlear partition model
15:40 - 16:00	Erdi	KARA	Diffusion Tensor Imaging (DTI) Based Drug Diffusion Model in a Solid Tumor
16:00 - 16:20	Shokoufeh	Ghezeljeh	Application of the high order accuracy method to solve viscous Burgers' equation for weather forecast model
16:20 - 16:40	Daniel	Acosta Soba	Energy-stable numerical schemes for a diffuse-interface tumor-growth model
16:40 - 17:00	Veronika	Schulze	Optimal configuration of boundary conditions for a piezoelectric problem with OED

Number theory: Session 1	First Name	Last Name	Title
15:00 - 15:20	Javier	Santiago	Permutation binomials of index $q^{e-1} + \dots + q + 1$ over F_{q^e}
15:20 - 15:40	Shanna	Dobson	The K-theory of Diamonds
15:40 - 16:00	Ayesha	Hussain	Distributions of Character Sums
16:00 - 16:20	Daniel	Gil Muñoz	The action of a Hopf Galois structure on the p-part of a dihedral degree 2p extension
16:20 - 16:40	Lillian	Gonzalez-Albino	Involutions of the form $x^m(x^{\frac{q-1}{2}} + a)$ over F_q
16:40 - 17:00	Tekgül	Kalaycı	Permutation polynomials over finite fields and factorization