

14th International ISAAC Congress Programme



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Welcoming address

The ISAAC board, the Local Organizing Committee and the Department of Computer Science and Mathematics at the University of São Paulo, Campus Ribeirão Preto (Brazil), are pleased to invite you to the 14th International ISAAC Congress to be held from July 17 to July 21, 2023.

The 14th International ISAAC congress continues the successful series of meetings previously held in Delaware, USA (1997), Fukuoka, Japan (1999), Berlin, Germany (2001), Toronto, Canada (2003), Catania, Italy (2005), Ankara, Turkey (2007), London, UK (2009), Moscow, Russia (2011), Krakow, Poland (2013), Macao, China (2015), Växjö, Sweden (2017), Aveiro, Portugal (2019), Ghent, Belgium (2021).

We are looking forward to welcoming you in Ribeirão Preto.

The success of such a series of congresses would not be possible without the valuable contributions of all the participants.

We acknowledge the financial support for this congress given by

the FAPESP– Fundação de Amparo à Pesquisa do Estado de São Paulo,

the Universidade de São Paulo (USP),

the CNPq – Conselho Nacional de Desenvolvimento Científico e Tecnológico,

the Pró – Reitoria de Pesquisa e Inovação (PRPI-USP)

the CAPES – Coordenação de Aperfeiçoamento de Pessoal de Nível Superior,

the INCTMAT – Instituto Nacional de Ciência e Tecnologia de Matemática,

the Dipartimento di Matematica ‘Tullio Levi-Civita’ of Università degli Studi di Padova.

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Plenary lectures and events

Monday, 17 July, Auditorium of the Faculty of Law (Building 7)

08:00 – 8:30	Registration	
08:30 – 09:00		Opening Ceremony
09:00 – 10:00	Loukas Grafakos	Maximal averages with respect to balls and spheres
14:00 – 15:00	Anna Mazzucato	Mixing in fluids: irregular transport, enhanced dissipation, and applications

Tuesday, 18 July, Auditorium of the Faculty of Law (Building 7)

09:00 – 10:00	Zdzislaw Brzezniak	Stochastic wave equations with constraints: well-posedness and Smoluchowski-Kramers diffusion approximation
14:00 – 15:00	Gustavo Ponce	The asymptotic behavior of solution to the BO equation

Wednesday, 19 July, Auditorium of the Faculty of Law (Building 7)

09:00 – 10:00	Danylo Radchenko	From energy minimization to Fourier uniqueness pairs
10:30 – 11:30	Hubert Lacoin	Anisotropic motion by curvature obtained as a scaling limit of Glauber dynamics
14:00 - 15:00		Recital de Piano

Thursday, 20 July, Auditorium of the Faculty of Law (Building 7)

9:00 – 10:00	Irena Lasiecka	Can we control a flutter in flow-structure interactions? How and where?
14:00 – 15:00	Monica Musso	Leapfrogging for Euler equations

Friday, 21 July, Auditorium of the Faculty of Law (Building 7)

10:30 – 11:30	Carlos Pérez Moreno	Extensions of Sobolev inequalities through Harmonic Analysis
11:30 - 12:00		Closing Ceremony

Thematic Session

Session 1 - Applications of Dynamical Systems Theory in Biology

Thursday, 20 July, (Building 04 - Room 16)

10:30 – 11:00	Gergely Röst	Hopf bifurcation made simple for some scalar DDEs
11:05 – 11:35	Benito Pires	Piecewise contractions of the interval and its applications
11:40 – 12:10	Ábel Garab	Global dynamics of delay equations
15:30 – 16:00	Andrea Corli	Biased movements of mixed populations: the influence of convection in the existence of wavefronts
16:05 – 16:35	Torsten Axel Lindström	On the stochastic engine of transmittable diseases in exponentially growing populations

Session 2 – Complex Geometry

Monday, 17 July, (Building 04 - Room 15)

10:30 – 11:00	Anita M. Rojas	Some results about the moduli spaces M_g and A_g
11:05 – 11:35	Sebastián Reyes - Carocca	On group actions on Riemann surfaces and Weierstrass points
11:40 – 12:10	Giulio Bresciani	The field of moduli of plane curves
16:05 – 16:35	José Oscar González-Cervantes	On slice regular Bergman space and fiber bundle theory
16:40 – 17:10	Christer Oscar Kiselman*	Complex Convexity

(*) remote lecture

Tuesday, 18 July, (Building 04 - Room 15)

10:30 – 11:00	Pedro Luis Del Ángel Rodríguez	BC_n Matroids and torus invariant subvarieties of the Symplectic Grassmannian of Isotropic planes
11:05 – 11:35	Ángel Luis Muñoz Castañeda	Degenerations of moduli spaces of principal bundles over projective curves
11:40 – 12:10	Francisco José Plaza Martín	Finiteness properties of the subalgebra of invariant elements
15:30 – 16:00	Andres Fernandez Herrero	Harder-Narasimhan theory for gauged maps
16:05 – 16:35	Avery Wilson	G-bundles on singular curves and conformal blocks
16:40 – 17:10	Juan Martin Perez Bernal	A Donaldson-Uhlenbeck type compactification of the Moduli Space for Singular Principal G-Bundles
17:15 – 17:45	Gaia Comaschi	Instanton bundles on contact Fano manifolds

Thursday, 20 July, (Building 04 - Room 15)

11:05 – 11:35	Cesare Goretti	A Kobayashi-Hitchin correspondence for ρ -coherent systems
11:40 – 12:10	Frank Neumann	Atiyah sequences, connections and Chern-Weil theory for principal bundles over smooth stacks
15:30 – 16:00	Alessia Mandini	New results on hyperpolygons and moduli space of parabolic Higgs bundles
16:05 – 16:35	Peter Gueorgiev Dalakov	Seiberg-Witten differentials on the Hitchin base
16:40 – 17:10	Ugo Bruzzo	Ricci-flat metrics on canonical bundles

Session 3 – Complex Variables and Potential Theory

Tuesday, 18 July, (Building 01 - Room 600-B)

Chair	Nino Manjavidze	
10:30 – 11:00	George Giorgobiani	Rearrangement universality of the Dirichlet type series in a complex field
11:05 – 11:35	Christopher Green	Harmonic measure distribution functions in various geometries
11:40 – 12:10	Flavia Lanzara	Fast computation of high-dimensional volume potentials
Chair	Massimo Lanza de Cristoforis	
15:30 – 16:00	Iryna Denega*	An extremal problem on non-overlapping domains containing ellipse points
16:05 – 16:35	Oleksandr* Dovahopiatyi	On compact classes of solutions of Dirichlet problem in simply connected domains
16:40 – 17:10	Anatoly Golberg*	Homeomorphisms of finite area distortion
17:15 – 17:45	Serhii Gryshchuk*	Biharmonic problem in an angle and monogenic functions

Wednesday, 19 July, (Building 01 - Room 600-B)

Chair	Flavia Lanzara	
15:30 – 16:00	Bogdan Klishchuck*	On the order of growth of ring Q -homeomorphisms
16:05 – 16:35	Massimo Lanza de Cristoforis	A survey on the boundary behavior of the double layer potential in Schauder spaces in the frame of an abstract approach
16:40 – 17:10	Sergiy Plaksa*	Monogenic functions and harmonic vectors
17:15 – 17:45	Evgeny* Sevost'yanov	On mappings with inverse Poletsky inequality on Riemannian manifolds

(*) remote lecture

Thursday, 20 July, (Building 01 - Room 600-B)

Chair	George Giorgobiani	
10:30 – 11:00	Nino Manjavidze	On the structure of regular generalized analytic functions
11:05 – 11:35	Kordan Nauryzkhanovich Ospanov	On the correctness and maximal regularity of a second-order differential equation with unbounded coefficients
11:40 – 12:10	Luis Manuel Tovar	Conjugate Complex Harmonic Functions
Chair	Luis Manuel Tovar	
15:30 – 16:00	Vitalii Shpakivskiy*	σ -monogenic functions in commutative algebras
16:05 – 16:35	Mariia Stefanchuk*	On the logarithmic asymptotic of solutions of the nonlinear Cauchy-Riemann-Beltrami type equation
16:40 – 17:10	Yaroslav* Volodimirovich Zabolotnyi	Some estimates of the products of some powers of the inner radii of multiconnected domains

(*) remote lecture

Session 4 – Evolution Equations and Dynamical Systems

Monday, 17 July, (Building 04 - Room 14)

10:30 – 11:00	Alexandre Nolasco de Carvalho	Bifurcation and hyperbolicity for a nonlocal quasilinear parabolic problem
11:05 – 11:35	Jacson Simsen	Large diffusion phenomena for autonomous evolution equations with variable exponents
11:40 – 12:10	Leonardo Pires	Rate of convergence of attractors for evolution equations
15:30 – 16:00	Everaldo de Mello Bonotto	Theory of attractors for a class of impulsive systems
16:05 – 16:35	Joeho Hwang	A Necessary and Sufficient Conditions for the Global Existence of Solutions to Fractional Reaction-Diffusion Equations on R^n
16:40 – 17:10	Rawilson Araújo	Bresse systems: Partial damping and uniform dynamics
17:15 – 17:45	Salah-Eddine Rebiai	Energy decay estimates for the transmission Schrödinger/wave equation with distributed damping

Tuesday, 18 July, (Building 04 - Room 14)

10:30 – 11:00	Alessandra Verri	Bound states in quantum waveguides
11:05 – 11:35	Marcone C. Pereira	The spectrum of a nonlocal Dirichlet problem
11:40 – 12:10	Jean Carlos Nakasato	Homogenization of the non-isothermal, non-Newtonian fluid flow in a thin domain with oscillating boundary
15:30 – 16:00	Pedro Tavares Paes Lopes	An Abstract lagrangian framework for computing shape derivatives
16:05 – 16:35	Soon-Yeong Chung	A Necessary and Sufficient Conditions for the Global Existence of Solutions to Reaction-Diffusion Systems with Time-dependent Sources
16:40 – 17:10	Estefani Moraes Moreira	The existence of isolating blocks for multivalued semiflows
17:15 – 17:45	Marcus Mendonça Marrocos	Critical Domains for Eigenvalues of the Grushin Laplacian on Cartesian Product Manifolds

Session 5 – Function Spaces and their Applications to Nonlinear Evolutional Equations**Monday, 17 July, (Building 04 - Room 13)**

15:30 – 16:00	Baoping Liu	Wellposedness and scattering for defocusing energy subcritical nonlinear wave equation
16:05 – 16:35	Nobu Kishimoto	Local well-posedness for the kinetic derivative nonlinear Schrödinger equation on the real line
16:40 – 17:10	Li Ze	Long time dynamics of some dispersive geometric PDEs
17:15 – 17:45	Crystianne Lilian de Andrade	The Keller-Segel model with fractional diffusion

Tuesday, 18 July, (Building 04 - Room 13)

10:30 – 11:00	Ryo Muramatsu	Estimates on modulation spaces for solutions to Schrödinger equations with magnetic fields
11:05 – 11:35	Liangchuan Wu	CMO spaces associated to Schrodinger operators: characterizations and applications
11:40 – 12:10	Shinya Kinoshita	Decoupling inequality and its application to the periodic Zakharov system
15:30 – 16:00	Lifeng Zhao	The viscous damping of three dimensional spherical gas bubble inside unbounded compressible liquid
16:05 – 16:35	Tomoya Kato	Multilinear pseudo-differential operators with limited smooth $S_{0,0}$ class symbols
16:40 – 17:10	Stanley Orlando Juriaans	Generalized Differential Geometry, Fixed Point Theorem and Probabilities

Session 6 – Harmonic Analysis and Partial Differential Equations

Tuesday, 18 July, (Building 04 - Room 26)

10:30 – 11:00	Durvudkhan Suragan	Fujita exponent on stratified Lie groups
11:05 – 11:35	Turdybek Nurlyberkuly	Noncommutative symmetric space associated with a weight
11:40 – 12:10	Duvan Cardona	Continuity properties for some operators arising in non-commutative harmonic analysis
15:30 – 16:00	Daniele Garrisi	Orbital stability and concentration of standing-wave solutions to a nonlinear Schrödinger system with mass critical exponent
16:05 – 16:35	Shyam Swarup Mondal	Restriction theorems and orthonormal Strichartz inequalities for certain operators
16:40 – 17:10	Abhilash Tushir	Discrete time-dependent wave equation for the schrodinger operator with discrete spectrum

Wednesday, 19 July, (Building 04 - Room 26)

15:30 – 16:00	Alexandre Kirilov	Solvability for a class of Vekua-type operators on the torus
16:05 – 16:35	André Pedroso Kowacz	Global Properties of First Order Differential Operators on $T^{r+1} \times S^{3s}$
16:40 – 17:10	Alexandre Almeida	Fractional integral operators on Stummel spaces
17:15 – 17:45	Praveen Agarwal	Fractional hypergeometric functions

Thursday, 19 July, (Building 04 - Room 26)

10:30 – 11:00	Ratnakumar Peetta Kandy	On Young's inequality for the twisted convolution
11:05 – 11:35	Madi Raikhan	On generalized singular number of positive matrix of τ measurable operators
11:40 – 12:10	Karina Navarro Gonzalez	A close look at the entropy numbers of the unit ball of the Reproducing Hilbert Space of isotropic positive definite kernels
15:30 – 16:00	Paulo Leandro Dattori da Silva	Solvability in the large and boundary value problems for Mizohata type operators
16:05 – 16:35	Nurgissa Yessirkegenov	Hardy and Poincare identities and inequalities related to Baouendi-Grushin operator
16:40 – 17:10	Ivan Beschastnyi	Pseudo-differential calculus adapted to Grushin manifolds
17:15 – 17:45	Wagner A. de Moraes	Global Properties for a Class of Operators on Compact Lie Groups

Friday, 21 July, (Building 04 - Room 26)

9:00 – 9:30	Myrzagali Ospanov	On generalized singular number of 2×2 positive matrices of τ -measurable operators
9:30 – 10:00	Aidyn Kassymov	Reverse integral Hardy inequality on metric measure spaces

Session 7 – Harmonic Analysis and Related Topics**Monday, 17 July, Room (Building 04 - Room 25)**

Chair	Tiago Picon	
10:30 – 11:00	Galia Dafni	Boundedness of commutators on local Hardy spaces
11:05 – 11:35	Laurent Moonens	L^p boundedness of directional maximal operators in the plane: theory vs practice
11:40 – 12:10	Lucas da Silva Oliveira	Extending homeomorphisms of the real line
Chair	Gustavo Hoepfner	
15:30 – 16:00	Thaís Jordão	Decay of Fourier coefficients of kernels satisfying extended Hölder conditions given by multipliers on the sphere
16:05 – 16:35	Cláudio Machado Vasconcelos	Inhomogeneous cancellation conditions and boundedness of operators in local Hardy spaces
16:40 – 17:10	Antonio Pedro de Azevedo Bezerra Vitor Ramos	The Least Quadratic Nonresidue and the Least Prime in an Arithmetic Progression through Fourier Optimization
17:15 – 17:45	Radouan Daher	Generalization of Titchmarsh theorem in the deformed Hankel setting

Tuesday, 18 July, (Building 04 - Room 25)

Chair	Lucas da Silva Oliveira	
10:30 – 11:00	Gustavo Hoepfner	Weighted Hardy spaces and ultradistributions
11:05 – 11:35	Maria Eugenia Cejas	Weighted a priori estimates for solutions of uniformly elliptic systems
11:40 – 12:10	José Manuel Conde Alonso	Lp-boundedness of Fourier and Schur multipliers
Chair	Laurent Moonens	
15:30 – 16:00	Emily Quesada Herrera	On Fourier uncertainty and extremal problems
16:05 – 16:35	Carolina Alejandra Mosquera	Self-improving Poincaré-Sobolev type functionals in product spaces
16:40 – 17:10	El Mehdi Loualid	Boas-Type Theorems For The Bessel Transform
17:15 – 17:45	Pedro Henrique Takemura Feitosa da Silva	Singular Integral Operators, Boundary Value Problems, and Herz Spaces

Thursday, 20 July, (Building 04 - Room 25)

Chair	José Manuel Conde Alonso	
10:30 – 11:00	Luis Castro	Qualitative analysis of a q-fractional boundary value problem with an integral condition
11:05 – 11:35	Anabela Souza Silva	Existence and Ulam-type stability for a Riemann-Liouville fractional initial value problem
11:40 – 12:10	Rita Guerra	Uncertainty principles for q-integral transforms with bounded kernels

Session 8 – Integral Transforms and Reproducing Kernels**Thursday, 20 July, (Building 04 - Room 21)**

10:30 – 11:00	Dong Hyun Cho	A finite measure with a scale over vector-valued paths and its properties
11:05 – 11:35	Yannick Anoh Kraidi	Reproducing Kernel Cartan Subalgebra
11:40 – 12:10	Joachim Toft	Fractional Fourier transform, harmonic oscillator propagators and Strichartz estimates

Friday, 21 July, (Building 04 - Room 21)

9:00 – 9:30	Paula Cerejeiras	Reproducing Krein Kernel Modules in the context of Clifford algebras
9:30 – 10:00	Zouhair Mouayn	Heat coefficients for magnetic Laplacians on the complex projective space $P^n(C)$

Session 9 – Partial Differential Equations on Curved Spacetimes**Wednesday, 19 July, (Building 01 - Room 500)**

15:30 – 16:00	Michael Gerhard Reissig (joint with 13)	Mathematician on three continents - on the occasion of Karen Yagdjian's 70th birthday
16:05 – 16:35	Makoto Nakamura (join with 13)	Global solutions of Klein-Gordon equation under the quartic potential in the de Sitter spacetime
16:40 – 17:10	Giovanni Girardi (joint with 13)	Global Wellposedness for a Class of Weakly Hyperbolic Cauchy Problems on R^d
17:15 – 17:45	Ruy C. Charão (joint with 13)	Asymptotic profile of solutions to wave equations with critical log-damping

Thursday, 20 July, (Building 01 - Room 500)

10:30 – 11:00	Michael Gerhard Reissig	Regularity theory and global existence of small data solutions to semi-linear de Sitter models with power non-linearity
11:05 – 11:35	Joachim Krieger	Singularity formation for the critical Zakharov system
11:40 – 12:10	Alessandro Palmieri	On a blow-up result with critical nonlinearities for a wave equation in the expanding de Sitter spacetime
15:30 – 16:00	Karen Yagdjian	Integral transform approach to solving partial differential equations in curved space-times
16:05 – 16:35	Masahito Ohta	Stability of standing waves for cubic-quintic NLS with delta potential
16:40 – 17:10	Takeshi Wada	On local well-posedness for critical NLS with power nonlinearity in higher spatial dimensions

Friday, 21 July, (Building 01 – Room 500)

8:30 – 9:00	Naoyasu Kita	Asymptotic behavior of solutions to a system of nonlinear Schrodinger equations with cubic dissipative nonlinearity
9:00 – 9:30	Jorge Manuel Silva Marques	Global (in time) existence of solutions for semilinear damped wave equations in Friedmann-Lemaître-Robertson-Walker spacetime
9:30 – 10:0	Anahit Galstian	The self-interacting Dirac fields in FLRW spacetime

Session 10 – PDEs in Fluid Mechanics

Monday, 17 July, (Building 04 – Room 11)

Chair	Helena J. Nussenzveig Lopes	
10:30 – 11:00	Gabriela Planas	Algebraic decay in critical Sobolev spaces for 4D energy-critical nonlinear heat equation
11:05 – 11:35	Lynnyngs Kelly Arruda	Stochastic traveling waves
11:40 – 12:10	Gerardo Jonatan Huaroto Cardenas	Dirichlet Problem for Degenerate Fractional Parabolic Hyperbolic Equations
Chair	A. Mazzucato	
15:30 – 16:00	Marcelo Martins dos Santos	A family of systems including the Herschel-Bulkley fluid equations
16:05 – 16:35	Irineu Lopes Palhares Junior	Asymptotic and numerical investigations on viscoelastic fluid flows
16:40 – 17:10	Daniel Ferreira Machado	Local and global analysis in Besov-Morrey spaces for inhomogeneous Navier-Stokes equations
17:15 – 17:45	Cilon V. Ferreira Perusato	Micro-rotation and Vorticity in Micropolar Flows

Tuesday, 18 July, (Building 04 – Room 11)

Chair	Anne Caroline Bronzi	
10:30 – 11:00	Milton da C. Lopes	Lower bounds on the radius of analyticity for the Navier-Stokes and Kuramoto-Sivashinsky systems
11:05 – 11:35	Henrique Borrin de Souza	Lagrangian Structure of Vlasov-Maxwell system
11:40 – 12:10	Bianca Morelli Rodolfo Calsavara	Existence of solution for a solidification model with convection
Chair	Marcelo Martins dos Santos	
15:30 – 16:00	Anne Caroline Bronzi	Statistical solutions to evolution equations
16:05 – 16:35	Zamurat Ayobami Adegboye	Interfaces for Shock Capturing Scheme and Boundary Conditions
16:40 – 17:10	Leithold Louis Aurazo Alvarez	A rescaled approach for the 3D-Boussinesq system in critical Fourier-Besov spaces
17:15 – 17:45	Edson Fausto Cuba Huamani	On the Cauchy problem for nonlinear Schrödinger equations with nonlinearities of Power-Type

Wednesday, 19 July, (Building 04 – Room 11)

Chair	Giusy Mazzone	
15:30 – 16:00	Wladimir Neves	The Buckley-Leverett system. Revisited
16:05 – 16:35	Sergey Sergeev	Asymptotic description of the long linear water wave propagation over the non-uniform bottom with fast-oscillating parts
16:40 – 17:10	Ricardo Martins Mendes Guimarães	On the self-similar blowup for the generalized SQG equation
17:15 – 17:45	Vladimir Angulo Castilho	On the 2D inviscid Boussinesq equations with critical regularity and dispersive effects in homogeneous Besov spaces

Thursday, 20 July, (Building 04 – Room 11)

Chair	Gabriela Planas	
10:30 – 11:00	Helena J. Nussenzveig Lopes	On energy balance in 2D incompressible ideal fluid flow
11:05 – 11:35	Juan Davi Londoño Acevedo	Euler-Lagrangian approach to stochastic Euler equations in Sobolev Spaces
11:40 – 12:10	Giusy Mazzone	Well-posedness of the equations governing the motion of a fluid-filled elastic solid
Chair	Milton da C. Lopes	
15:30 – 16:00	Eduardo Abreu	Numerical mathematics for computation of local and nonlocal nonlinear transport models in fluid mechanics
16:05 – 16:35	Nicolai Vasilievich Chemetov	The Rigid Body Motion in Cosserat's Fluid With Navier's Slip Boundary Conditions

Session 11 – Pseudo Differential Operators**Monday, 17 July, (Building 04 - Room 22)**

15:30 – 16:00	Joachim Toft	Orlicz modulation spaces and pseudo-differential operators
16:05 – 16:35	Yao dong Gao	Holomorphic One-Parameter Semigroups of Bounded Linear Operators Generated by Strongly M-Elliptic Pseudo-Differential Operators on Euclidean Spaces
16:40 – 17:10	Lalit Mohan	M-Ellipticity of Fredholm Pseudo-Differential Operators on $L^p(\mathbb{R}^n)$ and Garding's Inequality
17:15 – 17:45	Fernando de Avila Silva	Global hypoellipticity for a class of systems of periodic P.D.O.

Tuesday, 18 July, (Building 04 - Room 22)

15:30 – 16:00	Raoni Cabral Ponciano	Adams and Trudinger-Moser embeddings on weighted Sobolev spaces and applications
16:40 – 17:10	Mohd Sartaj	$L^p_\alpha(\mathbb{R}^{n+1})$ - Boundedness of Pseudo-differential Operators involving the Weinstein Transform
17:15 – 17:45	Akhilesh Prasad	Pseudo-differential operator associated with index Whittaker transform

Session 12 – Quaternionic and Clifford Analysis**Monday, 17 July, (Building 04 - Room 23)**

10:30 – 11:00	Peter Robert Massouput	Clifford B-Splines in Higher Dimensions
11:05 – 11:35	Paula Cerejeiras	White and Grey noise analysis in the case of generalised Grassmann algebras
11:40 – 12:10	Arran Fernandez	On fractional d-bar derivatives
15:30 – 16:00	Kamal Diki	Fock spaces and superoscillations
16:05 – 16:35	Hakim Monaim	General One-dimensional Clifford Fourier Transform and Applications to Probability Theory
16:40 – 17:10	Benjamin de Zayas	Fundamental solution of the weighted Rarita-Schwinger operator
17:15 – 17:45	Damian Eduardo Cedeño	Fundamental solution for the parametric operator $\Delta^2 + \lambda$
17:50 – 18:20	Wilmer Eduardo Barrera	A common Fixed point theorem in hyperbolic metric space for two functions satisfying a contractive condition with variable parameter

Tuesday, 18 July, (Building 04 - Room 23)

10:30 – 11:00	Albert Debernardi Pinos	Nuclear operators and the Grothendieck-Lidskii formula in quaternionic spaces
11:05 – 11:35	Yuri Grigor'ev	Quaternionic Kolosov-Muskhelishvili formulae for three dimensional transversely anisotropic elasticity
11:40 – 12:10	Ren Hu	Szegő-Radon transform in hypermonogenic setting and complex harmonic setting
15:30 – 16:00	Carmen Judith Vanegas	First Order Differential Operators Associated to $\Delta = \text{div}(B\nabla)$ Operator in Clifford Analysis
16:05 – 16:35	J. Oscar Gonzales - Cervantes	On slice regular functions and fiber bundle theory
16:40 – 17:10	Radouan Daher	On the Jackson-Stechn Theorems in Clifford algebras
17:15 – 17:45	Uwe Kähler	Spectral theory for quaternionic non-self-adjoint operators

Session 13 – Recent Progress in Evolution Equations

Tuesday, 18 July, (Building 01 – Room 502)

15:30 – 16:00	Ma To Fu	Exponential stability for viscoelastic waves with delay effects
16:05 – 16:35	Sandro Coriasco	Stochastic and deterministic evolution PDEs with polynomially bounded coefficients
16:40 – 17:10	Marcio da Jorge da Silva	Stability for partially damped models in curved beams
17:15 – 17:45	Yuta Wakasugi	Lifespan estimates for semilinear damped wave equation in a 2D exterior domain
17:50 – 18:20	Sandra Lucente	Test function method in KdV hierarchy, some confirmations, some news

Wednesday, 19 July, (Building 01 – Room 502)

15:30 – 16:00	Michael Gerhard Reissig (joint with 9)	Mathematician on three continents - on the occasion of Karen Yagdjian's 70th birthday
16:05 – 16:35	Makoto Nakamura (joint with 9)	Global solutions of Klein-Gordon equation under the quartic potential in the de Sitter spacetime
16:40 – 17:10	Giovanni Girardi (Joint with 9)	Global Wellposedness for a Class of Weakly Hyperbolic Cauchy Problems on R^d
17:15 – 17:45	Ruy Coimbra Charão (joint with 9)	Asymptotic profile of solutions to wave equations with critical log-damping

Thursday, 20 July, (Building 01 – Room 502)

10:30 – 11:00	Alberto Cialdea	Functional dissipativity of second order differential operators with complex coefficients
11:05 – 11:35	Alessia Ascanelli	Sharp decay assumptions in the Cauchy problem for p-evolution equations in Gevrey classes
11:40 – 12:10	Marco Cappiello	The Cauchy problem for KdV-type equations in projective Gevrey spaces
15:30 – 16:00	Massimo Gobbino	A road map to the blow-up for a Kirchhoff equation
16:05 – 16:35	Marina Ghisi	Global solutions to the Kirchhoff equation with spectral gap data in the energy space
16:40 – 17:10	Jorge Manuel da Silva Marques	Decay estimates for space-time fractional equations with structural damping and nonlinear memory
17:15 – 17:45	Halit Sevki Aslan	Visco-elastic damped wave models with time-dependent coefficient
17:50 – 18:20	Alexandre Arias Junior	Some remarks on the Cauchy Problem for \mathcal{P} -evolution equations in Gelfand-Shilov spaces

Friday, 21 July, (Building 01 – Room 502)

8:30 – 9:00	Marcello D'Abbicco	A weakly coupled system of noneffectively damped evolution equations
9:00 – 9:30	Wanderley Nunes do Nascimento	The move from Fujita type exponent to a shift of it for a class of semilinear evolution equations with scale-invariant time-dependent damping
9:30 – 10:00	Fumihiko Hirose	Global solvability for semi-discrete Kirchhoff equation

Session 14 – Stochastic Processes**Monday, 17 July, (Building 04 - Room 24)**

10:30 – 11:00	Diogo Gomes	Price model with common noise
11:05 – 11:35	Ricardo M. S. Rosa	Improved error estimate for the order of strong convergence of the Euler method for random ordinary differential equations
11:40 – 12:10	Mikhail Neklyudov	Ergodicity of infinite particle systems and applications
15:30 – 16:00	Paulo Ruffino	Stochastic n-point D-bifurcations of stochastic Lévy flows and their complexity on finite spaces
16:05 – 16:35	Renato Jacob Gava	CLT and almost sure CLT for dependent Bernoulli random variables
16:40 – 17:10	Yassine Tahraoui	On The Stochastic Optimal Distributed Control Of 3 rd Grade Fluids

Tuesday, 18 July, (Building 04 - Room 24)

10:30 – 11:00	Hakima Bessaih	Numerical schemes for various stochastic models in Hydrodynamic
11:05 – 11:35	Wladimir Neves	Stochastic Transport Equations. Recent results
11:40 – 12:10	Daniel Marroquin	Invariant measures for stochastic parabolic-hyperbolic equations in the space of almost periodic functions
15:30 – 16:00	Jesus Manuel Correa Lora	From stochastic hamiltonian systems to stochastic compressible Euler equation
16:05 – 16:35	Evelina Shamarova	Smoothness of densities for path-dependent SDEs under Hörmander's condition
16:40 – 17:10	Marco Bagnara	No blow-up by nonlinear Itô noise for Euler equations
17:15 – 17:45	Fernanda Cipriano	A boundary control problem for stochastic 2D-Navier-Stokes equations

Thursday, 20 July, (Building 04 - Room 24)

11:05 – 11:35	Marcelo Richard Hilario	Random walks driven by interacting particle systems in one dimension
11:40 – 12:10	Sandro Gallo	Large deviations for return times
15:30 – 16:00	Cristian Favio Coletti	On the asymptotic behaviour of the elephant random walk
16:05 – 16:35	Denis Araujo Luiz	A random walk with memory perturbed by a dynamical system
16:40 – 17:10	Rafael A. Rosales	Interacting vertex reinforced random walks on complete sub-graphs

Session 15 – Trends in Nonlinear Dispersive Equations (Building 04 - Room 21)**Tuesday, 18 July, (Building 04 - Room 25)**

15:30 – 16:00	Ademir Pazoto	Controllability of a model system for strong interaction between internal solitary waves
16:05 – 16:35	Renata Oliveira Figueira	Decay of the radius of spatial analyticity for the modified KdV equation
16:40 – 17:10	Carlos Manuel Guzman Jimenez	Scattering for the non-radial inhomogeneous Schrodinger-type equations

Wednesday, 19 July, (Building 04 - Room 25)

15:30 – 16:00	Jose Manuel Jiménez	Properties of the Support of Solutions of a Class of Nonlinear Evolution Equations
16:05 – 16:35	Andressa Gomes	Global well posedness for inhomogeneous nonlinear Schrödinger equation with combined power-type nonlinearities
16:40 – 17:10	Luccas Campos	Long-time behavior of inhomogeneous Schrödinger equations with inverse-square potentials

Thursday, 20 July, (Building 04 - Room 25)

15:30 – 16:00	Nataliia Goloshchapova	Coupled NLS equations with double power nonlinearities
16:05 – 16:35	Mykael de Araújo Cardoso	Blow-up solutions for the inhomogeneous nonlinear Schrödinger equation
16:40 – 17:10	José Manuel Palacios	Local well-posedness for the gKdV equation on the background of a bounded function

Session 16 – Wavelet Theory and its Related Topics

Monday, 17 July, (Building 04 - Room 22)

10:30 – 11:00	Akira Morimoto*	Feature extraction from mixed speech data using wavelet analysis
11:05 – 11:35	Uday Singh	Fractional neural network interpolation operator of irregular grid points

(*) remote lecture

Tuesday, 18 July, (Building 04 – Room 22)

10:30 – 11:00	Ryuichi Ashimo*	Coupled Fractional Fourier Transform: Convolution and Correlation Theorems and Uncertainty Principle
11:05 – 11:35	Yun-Zhang Li*	A class of quaternionic Fourier orthonormal bases

(*) remote lecture

Thursday, 20 July, (Building 04 - Room 22)

10:30 – 11:00	Toshio Suzuki*	The p-adic wavelet expansion of the locally constant test function and its Fourier transform
11:05 – 11:35	Isiaka Aremua*	On statistical operators formalism in coherent states Hilbert spaces
11:40 – 12:10	Keiko Fujita	On characterization of the Gabor wavelet transform of analytic functionals

(*) remote lecture