Scientific program

MONDAY, JUNE 29, 2026

9:00–9:20 Opening ceremony

Vencovského Hall | Chairs: TBA

9:20–10:20 Babuška-Kurzweil Lecture

Vencovského Hall | Chairs: TBA

Variational models for phase separation in heterogeneous media
Irene Fonseca

10:20–10:50 Coffee break

10:50–11:50 Plenary lecture

Vencovského Hall | Chairs: TBA

A spectral approach to computer-assisted proofs in dynamics
Jan Bouwe van den Berg

12:00–12:40 Invited lectures

Vencovského Hall | Chairs: TBA

On the global well-posedness of the stochastic Yang-Mills-Higgs equations in two dimensions
Bjoern Bringmann

Hall NB B | Chairs: TBA

Local minimizers and mountain pass critical points
Gabriele Bonanno

Hall RB 101 | Chairs: TBA

Cut finite element methods
Sara Zahedi

12:40–14:00 Lunch break

14:00–18:30 Minisymposia

P03 | ELLIPTIC AND PARABOLIC PDE IN GEOMETRIC ANALYSIS

Hall NB A | Chairs: Anna Skorobogatova, Salvatore Stuvard

14:00 **Non-uniqueness of locally-minimizing clusters**
Anna Skorobogatova

14:30 **Phase transitions with bounded index: Parallels to De Giorgi's conjecture**
Enric Florit-Simon

15:00 **Stationary points of conformally invariant polyconvex energies**
Riccardo Tione

15:30 **Global minimality of the Hopf map in the Faddeev-Skyrme model with large coupling constant**
Konstantinos Zemas

16:00–16:30 Coffee break

16:30 **Brakke's Mean Curvature Flows: an overview**
Salvatore Stuvard

17:00 **Backwards uniqueness and rates of singularity formation in Mean Curvature Flow**
Joshua Daniels-Holgate

17:30 **Non-local Constrained Curvature Flows within non-flat ambients**
Esther Cabezas-Rivas

18:00 **On the singular set of fractional harmonic maps**
Alessandro Audrito

P08 | ANALYSIS OF THIN AND HETEROGENEOUS STRUCTURES IN MATERIALS SCIENCE

Hall NB B | Chairs: Igor Velčić, Carolin Kreisbeck, Marin Bužančić

14:00 **The effects of pressure loads in the dimension reduction of elasticity models**
Martin Kružík

14:30 **Variational derivation of the Flamant solution for a nonlinear elastic wedge**
Dominik Engl

15:00 **Variational models for material voids: Dimension reduction and homogenization**
Manuel Friedrich

15:30 **Homogenization in magnetoelasticity under small elastic response**
Lorenza D'Elia

16:00–16:30 Coffee break

16:30 **Rigorous derivation of a Biot-Plate-System for a thin poroelastic layer**
Markus Gahn

17:00 **Poroelastic plate model obtained by simultaneous homogenization and dimension reduction**
Josip Žubrinić

17:30 **Homogenization of elasto-plastic plate equations with vanishing hardening**
Marin Bužančić

18:00 **Simultaneous dimensional reduction and homogenization in manifold constrained functions spaces**
Elvira Zappale

P05 | PATTERNS IN NETWORKED SYSTEMS: THEORY AND APPLICATIONS

Hall NB C | Chairs: Babette de Wolff, Sören von der Gracht

14:00 **Computing phase dynamics in delay--coupled oscillators**
Babette de Wolff

14:30 **Emergent spatiotemporal dynamics in large-scale brain networks with next generation neural mass models**
Gemma Huguet

15:00 **Stability of phase-locked states in signed Kuramoto Networks: Structure versus Adaptation**
Jaeyoung Yoon

15:30 **Phase synchronisation in coupled oscillator chains with endpoint heterogeneity**
Nicolas Verschueren van Rees

16:00–16:30 Coffee break

16:30 **Switching states: Heteroclinic cycles as organizing centers of neuronal dynamics**
Kateryna Nechyporenko

17:00 **Heteroclinic networks in coupled cell systems**
Liliana Sofia Garrido da Silva

17:30 **Directed hypernetworks: Heteroclinic dynamics and reluctant synchrony breaking**
Sören von der Gracht

18:00 **Discussion**

P06 | MULTISCALE ANALYSIS OF SELF-ORGANIZATION: HYDRODYNAMIC AND KINETIC FRAMEWORKS

Hall NB D | Chair: Ewelina Zatorska

14:00 **Spectral analysis of Bochner-positive alignment models and application to relaxation**
Roman Shvydkoy

14:30 **Self-attention as a multi-agent system: A dynamical perspective on transformers**
Jan Peszek

15:00 **Global solutions to cross-diffusion systems with independent advections in one dimension**
Jakub Skrzeczkowski

15:30 **Existence and weak-strong uniqueness of measure solutions to Euler-alignment/Aw-Rascle-Zhang model of collective behaviour**
Ewelina Zatorska

16:00–16:30 Coffee break

P09 | FLUID MECHANICS AND TURBULENCE

Hall NB D | Chairs: Roger Lewandowski, Cherif Amrouche

16:30 **Existence of solutions for motions of Cosserat-Bingham fluids**
Michael Ruzicka

17:00 **Improving accuracy in Eddy Viscosity Turbulence Models through filtering and approximate deconvolution**
Argus-Adrian Dunca

17:30 **Reduced Basis Smagorinsky turbulence models**
Tomás Chacón Rebollo

18:00 **Discussion**

N09 | NEW TRENDS IN DISCONTINUOUS GALERKIN METHOD

Hall RB 101 | Chairs: Vít Dolejší, Václav Kučera

14:00 **Oscillation-free discontinuous Galerkin method for conservation laws**
Chi-Wang Shu

14:30 **L^2-stability of explicit Runge-Kutta methods with SUPG stabilization for transient transport problems**
Alexandre Ern

15:00 **Entropy Stable DGSEM for Multi-Fluid 5-Moment GLM-Maxwell Systems**
Daniel Bach

15:30 **DG = FEM + flat elements**
Václav Kučera

16:00–16:30 Coffee break

16:30 **A simple and general framework for the construction of exactly div-curl-grad compatible discontinuous Galerkin finite element schemes on unstructured simplex meshes**
Michael Dumbser

17:00 **Structure-preserving PolyDG discretizations for the numerical modeling of neurodegenerative diseases**
Francesca Bonizzoni

17:30 **Positivity-preserving Stationarity Preserving PAMPA-DG Scheme with Global Flux Quadrature**
Yongle Liu

18:00 **Adaptive domain decomposition preconditioners for discontinuous Galerkin discretization**
Vít Dolejší

N05 | NUMERICAL ASPECTS OF MACHINE LEARNING FOR PDES

Hall RB 209 | Chairs: Andrea Manzon, Nicola Rares Franco

14:00 **Discovering adaptive basis representations for parametrized PDEs with Deep Orthogonal Decomposition: theory and practice**
Nicola Rares Franco

14:30 **Low-rank surrogates for parametric PDEs**
Benno Huber

15:00 **Preconditioning and Numerical Stability in Neural Network Training for Parametric PDEs**
Chenguang Duan

15:30 **Convergence and Sketching-Based Efficient Computation of Neural Tangent Kernel Weights in Physics-Based Loss**
Max Hirsch

16:00–16:30 Coffee break

16:30 **Deep Symmetric Autoencoders: Error Estimates and Beyond**
Simone Brivio

17:00 **Neural network-based numerical methods for one-dimensional conservation laws**
Vendel Péter Kupás

17:30 **A hybrid approach for surrogate modeling of a methanation reactor**
Ion Victor Gosea

18:00 **Learning the continuous-time dynamics: from trajectories to velocities**
Nicola Farenga

N07 | MATHEMATICAL MODELLING AND NUMERICAL METHODS IN FINANCE

Hall RB 210 | Chairs: Carlos Vázquez Cendón, Íñigo Arregui

14:00 **Jump-diffusion models for the generation rate in the pricing of renewable energy certificates (RECs)**
Pablo Pérez Picos

14:30 **Partial Integro-Differential Equations and their Applications in Financial Modeling**
Daniel Ševčovič

15:00 **Matrix Riccati BSDEs with singular terminal condition and stochastic LQ control with linear terminal constraint**
Petr Petrov

15:30 **Pricing American real options with double continuation region under Heston model**
Íñigo Arregui

16:00–16:30 Coffee break

N14 | ADVANCES IN THE NUMERICAL INVESTIGATION OF DELAY EQUATIONS

Hall RB 210 | Chairs: Dimitri Breda, Alessia Andò

16:30 **Functional Runge-Kutta methods for stochastic delay differential equations**
Dimitri Breda

17:00 **The Hopf Bifurcation for Neutral Delay Differential Equations with State-Dependent Delay**
Ahlam Alhadbani

17:30 **Towards a proof of chaotic dynamics in the Mackey-Glass equation**
Olivier Hénot

18:00 **Exctracting tent maps from the Mackey-Glass attractor**
Davide Di Lenarda

D01 | OSCILLATIONS IN DYNAMICAL SYSTEMS

Hall RB 211 | Chairs: Joan Torregrosa, Peter De Maesschalck

14:00 **Slow-fast solutions of Abel equations**
Maria Jesus Alvarez

14:30 **Isolated periodic orbits in behavioristic diffusion models**
Robert Kooij

15:00 **A geometric approach to exponentially small splitting phenomena**
Kristian Uldall Kristiansen

15:30 **Unfoldings of limit cycles in families of centers**
Joan Torregrosa

16:00–16:30 Coffee break

16:30 **C1 perturbations of a continuum of critical points**
Antonio Urena

17:00 **A systematic study of two-layer canard cycles**
Peter De Maesschalck

17:30 **Computer assisted study of a perturbed planar vector field in the quadratic case**
Zbigniew Galias

18:00 **Center conditions and cyclicity for generic planar polynomial vector fields**
Warwick Tucker

D08 | ASYMPTOTIC THEORY OF DIFFERENTIAL EQUATIONS OF REAL ORDERS

Hall RB 212 | Chair: Pavel Řehák

14:00 **Stability of linear systems and two-term equations with Prabhakar derivatives: spectral criteria and computations**
Eva Kaslik

14:30 **Fractional initial and boundary value problems: from qualitative analysis to applications**
Kateryna Marynets

15:00 **Asymptotic stability of linear differential equations with discrete and distributed delays**
Hideaki Matsunaga

15:30 **Period two implies chaos for a class of ODEs revisited**
Jan Andres

16:00–16:30 Coffee break

16:30 **Asymptotic behavior and stability of nonautonomous linear differential equations with Kirchhoff coefficients**
Mihály Pituk

17:00 **From fractional differential to difference equations: A stability perspective**
Luděk Nechvátal

17:30 **Tempered Psi-fractional calculus: Integral inequalities and their applications**
Michal Pospíšil

18:00 **Fractional integration and differentiation of asymptotic relations and applications in fractional differential equations**
Pavel Řehák

D04 | NONLOCAL EVOLUTION PROBLEMS IN ABSTRACT SPACES

Hall RB 213 | Chairs: Irene Benedetti, Valentina Taddei

14:00 **Nonlocal differential problems in abstract spaces**
Irene Benedetti

14:30 **On impulsive problems driven by second order differential inclusions**
Giulia Duricchi

15:00 **Controllability of semilinear second-order differential equations in abstract spaces**
Martina Pavlačková

15:30 **Evolution problems with nonlocal equations and constraints: a survey**
Radu Precup

16:00–16:30 Coffee break

D09 | INTEGRATION THEORY IN APPLICATIONS TO DIFFERENTIAL EQUATIONS AND BEYOND

Hall RB 213 | Chairs: Antonín Slavík, Giselle Monteiro

16:30 **The Kurzweil integral in hysteresis modeling**
Giselle Monteiro

17:00 **The Kernel of the Stieltjes Derivative in the Analysis of Cauchy Problems**
Fernando Adrián Fernández Tojo

17:30 **Differentiability of the solution operator of a sweeping process**
Martin Brokate

18:00 **Koopman semigroups on Lebesgue spaces**
Pedro J. Miana

TUESDAY, JUNE 30, 2026

9:00–10:00 Plenary lecture

Vencovského Hall | Chairs: TBA

AI for data-driven simulations in physics
Siddhartha Mishra

10:00–10:30 Coffee break

10:30–16:00 Minisymposia & Contributed talks

P04 | ELLIPTIC AND PARABOLIC PDE IN GEOMETRIC ANALYSIS

Hall NB A | Chairs: Martin Kružík, Barbora Benešová

10:30 **A two-dimensional variational approach to the modelling of ferronematic thin films**
Anja Schlömerkemper

11:00 **Nonlinear models in thermo-viscoelasticity**
Manuel Friedrich

11:30 **Problems with inertia and their variational limits**
Malte Kampschulte

12:00 **Linearization in elastodynamics**
Barbora Benešová

12:30–14:00 Lunch break

14:00 **Existence and selection in the solutions in the energy-variational framework**
Robert Lasarzik

14:30 **An effective damage and fracture model based on micro-structure**
Dorothee Knees

15:00 **Derivation of membrane models in nonlocal hyperelasticity**
Anastasia Molchanova

15:30 **Core-radius approximation of singular minimizers in nonlinear elasticity**
Marco Bresciani

16:00–16:30 Coffee break and posters

P02 | ANALYSIS OF SINGULAR LIMIT PROBLEMS ARISING IN FLUID DYNAMICS

Hall NB B | Chair: Francesco Fanelli

10:30 **Continuous data assimilation for compressible temperature driven fluids**
Eduard Feireisl

11:00 **Incompressible limits at large Mach number for a reduced compressible MHD system**
Aneta Wróblewska-Kamińska

11:30 **High and low-Mach number regimes for capillary fluids**
Matteo Caggio

12:00 **Hydrodynamic limit of the kinetic Cucker-Smale model toward the incompressible Euler-alignment model**
David Poyato

12:30–14:00 Lunch break

14:00 **Anelastic approximation for the degenerate compressible Navier-Stokes equations**
Nilasis Chaudhuri

14:30 **Dynamics of a Large System of Heavy Particles in a Newtonian Fluid**
Arnab Roy

15:00 **Derivation of the Vlasov-Stokes equation -- the monokinetic and the small-inertia case**
Richard Höfer

15:30 **Recent progresses in the asymptotic dynamics of fast rotating fluids**
Francesco Fanelli

16:00–16:30 Coffee break and posters

P11 | UNIQUENESS AND MULTIPLICITY OF POSITIVE SOLUTIONS OF NONLINEAR SPECTRAL

Hall NB C | Chairs: Peter Takáč, Petr Girg

10:30 **An Elliptic Spectral Problem with Concave and Convex Nonlinearity: Positive Solutions**
Peter Takáč

11:00 **On time-dependent Schrödinger equations constrained by measurements**
Jochen Merker

11:30 **On the multiplicity of positive solutions for spatially nonhomogeneous elliptic problems**
Petr Girg

12:00 **Numerical Construction of Multiple Positive Solutions of an Elliptic Problem with Concave and Convex Nonlinearity**
Jiří Benedikt

12:30–14:00 Lunch break

P51 | CONTRIBUTED TALKS, PARTIAL DIFFERENTIAL EQUATIONS

Hall NB C | Chair: TBA

14:00 **The Dirichlet problem for the Laplacian in Lipschitz Domains**
Cherif Amrouche

14:20 **Oseen resolvent system with traction boundary conditions**
Paul Deuring

14:40 **Optimal Korn-Maxwell-Sobolev inequalities**
Peter Lewintan

15:00 **Second positive solution for spatially nonhomogeneous elliptic problem**
Lukáš Kotrla

15:20 **Homogenisation of high-contrast integral operators**
Igor Velčić

15:40 **On stabilization of hyperbolic FitzHugh-Nagumo model**
Jamila Kalantarova

16:00–16:30 Coffee break and posters

P13 | STOCHASTIC AND DETERMINISTIC MIXED TYPE PROBLEMS: PARABOLIC/HYPERBOLIC/ELLIPTIC

Hall NB D | Chair: Nikolai Chemetov

10:30 **A Smoluchowski-Kramers approximation for the stochastic variational wave equation**
Julien Vovelle

11:00 **Moving boundary problems in fluid-poroelastic structure interaction**
Jeffrey Kuan

11:30 **Structure-preserving LDG methods for linear and nonlinear transport equations with gradient noise**
Thomas Christiansen

12:00 **Global solvability for a stochastic hyperbolic Keller - Segel system**
Nikolai Chemetov

12:30–14:00 Lunch break

N10 | NUMERICAL METHODS FOR FLUID-STRUCTURE INTERACTION PROBLEMS

Hall RB 101 | Chair: Petr Sváček

10:30 **Numerical Approximation of Fluid-Structure Interaction: From Mathematical Modeling to Applications**
Petr Sváček

11:00 **Fluid-structure interaction algorithm for an elastic structure with large deformations**
Ondřej Bublík

11:30 **Efficient linear finite element scheme for fluid–structure interaction: partitioned vs monolithic approach**
Karel Tůma

12:00 **Fluid–structure–acoustic interaction simulation motivated by human phonation**
Jan Valášek

12:30–14:00 Lunch break

N12 | MULTIPHYSICS PROBLEMS: NUMERICAL METHODS AND APPLICATIONS

Hall RB 101 | Chairs: Sarah Zahedi, Daniele Boffi

14:00 **Structure-preserving fully discrete methods for magnetoelastic materials**
Michele Ruggeri

14:30 **Hierarchical surrogate modeling for droplet-laden Stokes flows**
Davide Pradovera

15:00 **Domain Decomposition with Neural Model Order Reduction or Multiscale Mixed-Dimensional Problems**
Paolo Zunino

15:30 **Unconditionally stable finite element scheme for fluid-structure interaction problems**
Daniele Boffi

16:00–16:30 Coffee break and posters

N13 | ITERATIVE METHODS AND NUMERICAL LINEAR ALGEBRA FOR DIFFERENTIAL EQUATIONS

Hall RB 209 | Chairs: Martin Jacob Gander, Michal Outrata

10:30 **Exploiting Low-rank Structures for the Solution of PDEs**
Davide Palitta

11:00 **Iterative Methods for Fractional Differential Equations via the *-Product**
Stefano Pozza

11:30 **Reliable Waveform Relaxation Convergence Estimates for Atmosphere-Ice-Ocean Coupling**
Valentina Schüller

12:00 **On direct multilevel solvers induced by AMG**
Michal Outrata

12:30–14:00 Lunch break

14:00 **H-LU preconditioners for the RBF-FD discretized Oseen equations**
Michael Koch

14:30 **Block-Jacobi preconditioners for advection problems**
Ivo Dravins

15:00 **Determining the space dependent coefficients in space-time fractional diffusion equations via Krylov preconditioning**
Muhammad Faisal Khan

15:30 **Block Schwarz methods and preconditioning strategies using Generalized locally Toeplitz tools: proposals, analysis, and numerical validation**
Abdessadek Rifqui

N03 | NUMERICAL METHODS FOR PDE-BASED RANDOM FIELD GENERATION

Hall RB 210 | Chair: Robert Scheichl

10:30 **Long-time behavior of some stochastic evolution equations on the sphere and their numerical discretizations**
Björn Müller

11:00 **Multigrid Monte Carlo revisited: fast sampling of Gaussian Random Fields**
Eike Mueller

11:30 **Level-set approximation of noisy functions**
Matteo Croci

12:00 **Dirichlet-Neumann Averaging: Efficient SPDE-Based Gaussian Process Simulation**
Robert Scheichl

12:30–14:00 Lunch break

N08 | NUMERICAL METHODS FOR CURVATURE DRIVEN FLOW

Hall RB 210 | Chair: Michal Beneš

14:00 **Numerical Solution of Allen-Cahn Equation for Planar Curvature Flow with Constraints**
Michal Beneš

14:30 **Unified numerical analysis of moving boundary problems via the stabilized SAV approach**
Koya Sakakibara

15:00 **A threshold-type algorithm for fourth order geometric motions**
Katsuyuki Ishii

15:30 **Stability and Instability in Anisotropic Multi-Phase Interface Evolution**
Tokuhiro Eto

16:00–16:30 Coffee break and posters

D03 | ITERATIVE AND TOPOLOGICAL METHODS IN BOUNDARY VALUE PROBLEMS

Hall RB 211 | Chairs: Alberto Cabada, Marta García-Huidobro

10:30 **Spectral Characterization of the Constant Sign Derivatives of Green's Functions Related to Two-Point BVPs**
Alberto Cabada

11:00 **Radial solutions to equation with inhomogeneous operator**
Zuzana Došlá

11:30 **Existence results for systems of first-order Stieltjes differential equations**
Marlene Frigon

12:00 **Maximum Principle for the Hill Equation: Eigenvalue Approach**
Gabriela Holubová

12:30–14:00 Lunch break

14:00 **Are nonlinear first order Caputo fractional differential equations solvable?**
Kunquan Lan

14:30 **On the existence of positive solutions to boundary value problems with Riemann-Liouville fractional derivatives**
Satoshi Tanaka

15:00 **Multiple solutions of Dirichlet problems to implicit differential equations and inclusions in billiard spaces**
Jan Tomeček

15:30 **Nonlinear effects in linear delay equations and linear approach to nonlinear models with delay mortality**
Elena Braverman

16:00–16:30 Coffee break and posters

D02 | DELAY DIFFERENTIAL EQUATIONS AND APPLICATIONS

Hall RB 212 | Chairs: Teresa Faria, Ábel Garab

10:30 **On simplicity of solution manifolds**
Hans-Otto Walther

11:00 **Connecting orbits for some Mackey-Glass type equations**
Tibor Krisztin

11:30 **Spectral element methods for boundary-value problems of functional differential equations**
Alessia Andò

12:00 **Discrete Lyapunov functional for cyclic systems of differential equations with time-variable or state-dependent delay**
Ábel Garab

12:30–14:00 Lunch break

14:00 **Impact of Spatial Heterogeneity in Developmental Delay on Population Dynamics**
Jianhong Wu

14:30 **On the Geographic Spread of Chikungunya between Brazil and Florida: A Multi-patch Model with Time-delay**
Jaqueline Godoy Mesquita

15:00 **Blow-up and convergence of solutions to a differential equation with delayed negative feedback**
Yukihiko Nakata

15:30 **A nonautonomous chemostat system with delays**
Teresa Faria

16:00–16:30 Coffee break and posters

D06 | DIFFERENTIAL EQUATIONS FOR LIVING AND INTERACTING SYSTEMS

Hall RB 213 | Chairs: Josef Hofbauer, Cristina Pignotti

10:30 **Homogeneous Boltzmann-type equations on graphs**
Andrea Tosin

11:00 **Complex bifurcations generated by waning and boosting of immunity in infectious disease dynamics**
Gergely Röst

11:30 **Spontaneous Particle Aggregation with Memory**
Jan Haškovec

12:00 **Dynamics of a Piecewise Smooth Ghil-Zaliapin-Thompson ENSO model**
Tony Humphries

12:30–14:00 Lunch break

D50 | CONTRIBUTED TALKS, ORDINARY DIFFERENTIAL EQUATIONS

Hall NB C | Chair: TBA

14:00 Dynamics of delayed rational difference equations in higher dimensions
Yacim Halim

14:20 Inverse problem for abstract differential inclusions
Santosh Ruhil

14:40 Perturbations of the Kepler problem under Dirichlet boundary conditions
Tingyu Zhong

16:30–18:30 Contributed talks

P52 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB A | Chairs: TBA

16:30 **On the characteristic form of g-valued zero-curvature representations**
Jirina Jahnova

16:50 **Asymptotic behavior for the Maxwell-Dirac system in Lorenz and Coulomb gauges**
Kiyeon Lee

17:10 **Lie group analysis, group-invariant solutions and conservation laws of a family of coupled nonlinear Schrödinger equations**
Vassil Vassilev

17:30 **Regularity for a denoising model on manifolds**
Salvador Moll

18:50 **Large time-periodic solutions to nonlinear wave equations**
Filip Ficek

P53 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB B | Chairs: TBA

16:30 **Per aquam ad astra: on stars (and) boiling water**
Florian Oschmann

16:50 **Qualitative and quantitative homogenization of some non-Newtonian flows in perforated domains**
Yong Lu

17:10 **On the continuity in time of solutions to a generalized Navier-Stokes-Fourier system**
Petr Kaplický

17:30 **Existence and weak-strong uniqueness of measure solutions to Euler-alignment/Aw--Rascle--Zhang models.**
Jakub Woznicki

17:50 **Nonstationary non-Newtonian fluid flow in a thin tube structure**
Borja Rukavina

18:10 **Weak-Strong Uniqueness and Relaxation Limit for a Parabolic Relaxation of the Navier-Stokes-Korteweg System**
Florian Wendt

P54 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB C | Chairs: TBA

16:30 **Modular topology approach to the Non–Homogeneous Dirichlet problem for the p(x)-Laplacian**
Jan Lang

16:50 **Traveling waves in reaction-diffusion-convection problems with p-Laplacian-type diffusion**
Michaela Zahradníková

17:10 **Solvability of Nonlinear Coupled Systems Including Katugampola Fractional and p-Laplacian Operators**
Pratibha Verma

17:30 **The Brezis-Nirenberg problem: from the local to the nonlocal setting**
Raffaella Servadei

17:50 **Exact low multiplicity results for positive solutions of some sublinear problem with indefinite weights under Robin boundary conditions**
Kenichiro Umezu

17:50 **String stability for hysteretic flows**
Haitao Fan

N51 | NUMERICAL ANALYSIS

Hall RB 101 | Chairs: TBA

16:30 **Mixed-Dimensional Modeling for Flow in Fractured Porous and Poroelastic Media**
Maximilian Hörl

16:50 **Hybrid-dimensional models for fluid-filled fractured porous media**
Iryna Rybak

17:10 **Phase-Field Modeling of Fluid-Driven Fracture in Porous Media with Application to Desiccation Cracking**
Sayahdin Alfat

17:30 **Boundary Control and Data Assimilation for Navier–Stokes Flows with Applications to Hemodynamic**
Jorge Tiago

17:50 **Impact of turbulence modeling on hemodynamic risk indicators for aortic dissection: a quantitative comparison of predicted risk sites with laminar flow model**
Anne von Nida

18:10 **A Robin–Robin domain decomposition method for Stokes–Darcy problems with generalised coupling conditions**
Paula Strohbeck

N52 | NUMERICAL ANALYSIS

Hall RB 209 | Chairs: TBA

16:30 **Graph-Based Semi-Supervised Learning via PDEs and Total Variation**
Farid Bozorgnia

16:50 **Adaptive Thresholded Physics-Informed CNN for Mixed Noise Removal Using Anisotropic Diffusion**
Sanjeev Kumar

17:10 **A numerical algorithm for solving singularly perturbed boundary value problem arising in neuronal variability model**
Ashifa Khan

17:30 **Data-driven PDE models of tumor–immune dynamics in tumor micro-environment**
Leili Shahriyari

17:50 **Use of repeated integration in efficient algorithms for numerical analysis of selected problems of computational mechanics**
Jiří Vala

N53 | NUMERICAL ANALYSIS

Hall RB 210 | Chairs: TBA

16:30 **A compact higher-order formulation for unsteady two-dimensional convection–diffusion systems with RK-type time integration**
Sumit Kumar

16:50 **Order Reduction of Exponential Runge--Kutta Methods: Non-Commuting Operators**
Trung Hau Hoang

17:10 **Invariant Region Preserving Schemes for Mixed Hyperbolic-Parabolic Spdes**
Kristian Nekstad Maroni

17:30 **Time Filtered Finite Difference Schemes for Hyperbolic Problems**
Lisa Davis

17:50 **Stable Long-Horizon Prediction of Parametric PDE Solution with Latent-Tensor Vision Transformers**
Domagoj Vlah

18:10 **A posteriori error estimation of the immersed weak Galerkin method for parabolic problems with non-smooth coefficients**
Jhuma Sen Gupta

D51 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 211 | Chairs: TBA

16:30 **Periodic solutions of Hamiltonian systems with symmetries**
Anna Gołębiewska

16:50 **Stable and unstable periodic motions in a bouncing ball model**
Stefano Marò

17:10 **Levinson-Pliss Theorem for Periodic Lattice Dynamical Systems**
Andrei Sultan

17:30 **Periodic solutions of cosmology inspired Hamiltonian system**
Agnieszka Gołembiewska

17:50 **Distributional Adjoint Theory for Retarded Differential Operators: Uncovering the Structural Origin of Hale's Bilinear Form**
Junya Nishiguchi

18:10 **On parameter-dependent inhomogeneous boundary-value problems in Sobolev spaces**
Olena Atlasiuk

D52 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 212 | Chairs: TBA

16:30 **On impulsive differential equations with adaptive state-dependent delays**
Ferenc Hartung

16:50 **Sharp oscillation criteria for nth order linear delay differential equations**
Irena Jadlovska

17:10 **Sharp delay-independent global stability for a Lotka-Volterra system with multiple delays**
Yasuhisa Saito

17:30 **Delay-induced instabilities in neural field equations**
Mónika Polner

17:50 **The least-squares method in the theory of boundary value problems with delay**
Sergey Chuiko

18:10 **Morse Decomposition for Semi-Dynamical Systems with an Application to Systems of State-Dependent Delay Differential Equations**
István Balázs

D53 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 213 | Chairs: TBA

16:30 **Oscillation results for first order neutral delay differential equations with several positive and negative coefficients**
Gergő Tóth

16:50 **Oscillation criterion for generalized Euler difference equations**
Ludmila Linhartová

17:10 **Some oscillation criteria for the second-order linear advanced differential equations**
Zdeněk Opluštil

17:30 **Oscillation theorems for linear differential equations with a proportional-derivative controller**
Kazuki Ishibashi

17:50 **Threshold points and oscillation criteria for differential and difference equations**
Petr Hasil

18:10 **A Leighton-Wintner type oscillation theorem for p(t)-Laplacian dynamic equations on time scales**
Masakazu Onitsuka

WEDNESDAY, JULY 1, 2026

9:00–11:30 Plenary lectures

Vencovského Hall | Chairs: TBA

9:00 **On (In-)Stability Mechanisms in Inverse Problems**
Angkana Rüland

10:00–10:30 Coffee break

10:30 **A periodic prey-predator system**
Rafael Ortega

11:40–13:00 Invited lectures

Vencovského Hall | Chairs: TBA

11:40 **Dynamics of Non-Equilibrium Systems: Homoenergetic Flows for the Boltzmann Equation**
Alessia Nota

12:20 **On the dispersive effect of internal gravity waves in two-phase incompressible viscous flows**
Hirokazu Saito

13:00–14:00 Lunch

Hall NB B | Chairs: TBA

11:40 **Parameterizing asymptotic dynamics with manifolds and bundles**
Jonathan Jaquette

12:20 **Bifurcations from a normally degenerate cycle in forced differential equations**
Adriana Buică

13:00–14:00 Lunch

Hall RB 101 | Chairs: TBA

11:40 **Landmarks in the history of linear and nonlinear preconditioning**
Martin J. Gander

12:20 **Potential and flux reconstructions for optimal a priori and a posteriori error estimates**
Martin Vohralík

13:00–14:00 Lunch

THURSDAY, JULY 2, 2026

9:00–10:00 Plenary lecture

Vencovského Hall | Chairs: TBA

Very weak solutions and asymptotic behavior of Leray solutions to the steady-state Navier-Stokes equations in exterior domains
Giovanni P. Galdi

10:00–10:30 Coffee break

11:30–16:00 Minisymposia & Contributed talks

P10| STRUCTURES AND FLUIDS

Hall NB A | Chairs: Tomáš Bodnár, Giovanni P. Galdi

10:30 **Can One Control Large Sustained Oscillations in Fow-Structure Interactions?**
Irena Lasiecka

11:00 **Uniform stabilization of the Boussinesq System in Besov spaces with boundary-based, localized, finite dimensional, fluid and thermal feedback controllers**
Roberto Triggiani

11:30 **Regularized interface methods for geometrically nonlinear Navier-Stokes-Biot interaction**
Boris Muha

12:00 **Mathematical models for hemorheology and hemolysis**
Tomáš Bodnár

12:30–14:00 Lunch break

14:00 **Generalized Newtonian Flows with Directional Do-Nothing Boundary Conditions**
Ana Leonor Silvestre

14:30 **Contact in fluid-plate interaction: formation and detachment**
Srđan Trifunović

15:00 **On the compactness of artificial compressibility approximations of weak solutions for fluid problems in a general moving geometry**
Anna Hundertmark

15:30 **Semigroup Solutions for a Biot-Poroelastic plate-Stokes System**
George Avalos

16:00–16:30 Coffee break and posters

P07| NONLINEAR WAVES IN COMPLEX SYSTEMS – FRONTS, FLUIDS AND FLUCTUATIONS

Hall NB B | Chairs: Bastian Hilder, Jonas Jansen, Christian Kuehn

10:30 **Heterogeneity in Reaction–Diffusion Systems: A Feature, Not a Perturbation**
Martina Chirilus-Bruckner

11:00 **Beyond the Marginal Stability Criterion: Travelling Waves and Model Discrimination in Reaction–Diffusion Systems**
Vaclav Klika

11:30 **Some remarks about an effective description of high-frequency non-polarized wave-packet propagation**
Anna Logioti

12:00 **Think Global, Act Local: Inducing Fully Localised Patterns via Spatial Heterogeneity**
Dan Hill

12:30–14:00 Lunch break

14:00 **Traveling bore wave solutions to the free boundary incompressible Navier-Stokes equations**
Ian Tice

14:30 **Subcritical transition to turbulence via large-scale coherent structures**
Sébastien Gomé

15:00 **Rolls, runaway modes and energetic consistency in spectral truncations of the Rayleigh Bénard problem**
Roland Welter

15:30 **Dynamics of a rimming flow in a cylinder of finite length**
Juri Joussen

16:00–16:30 Coffee break and posters

P01| PDES IN VARIATIONAL THEORIES FOR LIQUID CRYSTALS AND ALLIED AREAS

Hall NB C | Chairs: Apala Majumdar, Elisabetta Rocca

10:30 **A free-discontinuity and free-boundary problem for smectic A liquid crystals**
Giacomo Canevari

11:00 **Compressible Active Nematic Liquid Crystals: Existence of Dissipative Solutions**
Kuntal Bhandari

11:30 **A relative energy inequality for electrolytes with liquid-crystal-like solvent: weak-strong uniqueness and a posteriori error estimates**
Luisa Plato

12:00 **Variational Approximation of the Heat Flow of Harmonic Maps**
Antonio Segatti

12:30–14:00 Lunch break

P55| CONTRIBUTED TALKS, PARTIAL DIFFERENTIAL EQUATIONS

Hall NB C | Chairs: TBA

14:00 **Global solutions to a Keller–Segel–Navier–Stokes system with potential consumption**
Gabriela Planas

14:20 **On the optimal rate of vortex stretching for axisymmetric Euler flows without swirl**
Deokwoo Lim

14:40 **Navier–Stokes–Cahn–Hilliard system in a 3D perforated domain with free slip and source term: Existence and homogenization**
Haradhan Dutta

15:00 **Existence of Solutions to the Navier-Stokes Equations in Lorentz-Besov Spaces**
Bholanath Kumbhakar

15:20 **Multiscale hyperbolic-parabolic models for nonlinear reactive transport in heterogeneously fractured porous media**
Taras Melnyk

15:40 **Linearization for Fluid Structure Interaction**
Christopher Körber

16:00–16:30 Coffee break and posters

P12| MULTISCALE ANALYSIS OF COUPLED PROBLEMS AND APPLICATIONS

Hall NB D | Chairs: Maria Neuss-Radu, Markus Gahn

10:30 **Geometric determinants of oxygen and heat exchange in placental mammals**
Igor Chernyavsky

11:00 **On some multifluid systems**
Milan Pokorný

11:30 **A Lumen–Tissue Magneto-Two-Phase Flow Model with Transendothelial Transport for Magnetic Drug Targeting**
Jonas Knoch

12:00 **Homogenization of a Stokes-transport system in an anisotropic porous medium with thin, evolving tubes**
Kilian Hacker

12:30–14:00 Lunch break

P56| CONTRIBUTED TALKS, PARTIAL DIFFERENTIAL EQUATIONS

Hall NB D | Chairs: TBA

14:00 **Low regularity approach for kinetic equations**
Donghyun Lee

14:20 **Initial layer for the Boltzmann equation**
Hung-Wen Kuo

14:40 **Self-similar solutions with finite time blow-up for reaction-diffusion equations**
Razvan Gabriel Iagar

15:00 **Fourth-order diffusion equations and Renyi entropies**
Mario Bukal

15:20 **Something other than the usual kind of instability and spatial patterns**
Jan Eisner

15:40 **Energy consistent hyperbolic approximations for some higher order PDEs**
Rahul Barthwal

16:00–16:30 Coffee break and posters

N04| NUMERICAL ALGORITHMS FOR PDE SOLVERS ON MODERN HPC ARCHITECTURES

Hall RB 101 | Chair: Erin Claire Carson

10:30 **Mixed-precision Computing: High Accuracy With Low Precision**
Erin Claire Carson

11:00 **Reduced and Mixed Precision QR Decomposition Techniques**
Eda Oktay

11:30 **Hybrid Hierarchical Matrices with Adaptive Precision Storage**
Ritesh Khan

12:00 **TNL: Numerical library for modern parallel architectures**
Tomáš Oberhuber

12:30–14:00 Lunch break

14:00 **Acceleration of a nonoverlapping domain decomposition solver by using GPUs on subdomains**
Jakub Šístek

14:30 **Parallel-in-time solver for the Runge-Kutta discretization of the heat equation**
Santolo Leveque

15:00 **A High-Level Quantum Lattice Boltzmann Solver for Pure Advection with Subregion Local Measurement**
Tomáš Bezděk

15:30 **Low-Rank Methods in Isogeometric Analysis**
Tom-Christian Riemer

16:00–16:30 Coffee break and posters

N11| ANALYSIS AND NUMERICAL ANALYSIS OF MEAN FIELD GAMES

Hall RB 209 | Chairs: Iain Smears, Harry Wells

10:30 **Long Time Behaviour, Stabilisation and Turnpike for Displacement Monotone Mean Field Games**
Alpár R. Mészáros

11:00 **A posteriori error bounds for finite element approximations of mean field games**
Harry Wells

11:30 **Wellposedness and quantitative convergence for distributed equilibria of displacement monotone N -player games with interactions through controls**
Hei Jie Lam

12:00 **On Schauder Estimates for Nonlocal Viscous Hamilton Jacobi Equations**
Robin Lien

12:30–14:00 Lunch break

14:00 **Hölder Regularity for Degenerate First-Order Hamilton-Jacobi Equations Under Controllability Conditions**
Megan Griffin-Pickering

14:30 **Error bounds for finite element approximations of stationary second-order mean field game systems**
Yohance Osborne

15:00 **Fully nonlinear mean field games with nondifferentiable Hamiltonians**
Thomas Sales

15:30 **The Effect of Quadrature on the Convergence of Policy Iteration for Hamilton--Jacobi--Bellman Equations**
Thomas Hall

16:00–16:30 Coffee break and posters

N01| NEW METHODS AND TECHNIQUES FOR THE APPROXIMATION OF PDES

Hall RB 210 | Chairs: Daniele Di Pietro, Paola Antonietti, Lourenço Beirão da Veiga, Jérôme Droniou

10:30 **A MLMC-VE method for uncertainty quantification of elliptic PDEs**
Francesca Bonizzoni

11:00 **A priori error analysis for a nonconforming virtual element method for the Monge-Ampere equation**
Scott Congreve

11:30 **A Reynolds-Semi-Robust H(div)-Conforming Method For Unsteady Incompressible Power-Law Flows**
Kirubell Biniam Haile

12:00 **Maxwell compactness for polytopal methods**
Simon Lemaire

12:30–14:00 Lunch break

14:00 **A High-Order Localized Orthogonal Decomposition for Stokes Equations**
Alexei Lozinski

14:30 **A higher order polytopal method for contact mechanics with Tresca friction**
Raman Kumar Kumar

15:00 **A high-order Discontinuous Galerkin method for the numerical modeling of neuronal electro-metabolic dynamics**
Francesco Daniele

15:30 **On positivity preservation of HDG methods for the diffusion equation on hypergraphs**
Petr Knobloch

16:00–16:30 Coffee break and posters

D05| HAMILTONIAN DYNAMICS AND KAM THEORY

Hall RB 211 | Chairs: Yingfei Yi, Jiansheng Geng

10:30 **Quasi-Periodic Breathers in Newton's Cradle**
Yingfei Yi

11:00 **Ejection-collision solutions and KAM tori in restricted N-body problems**
Jesús F. Palacián

11:30 **Quasi-periodic solutions to the nonlinear Klein-Gordon equations in two dimensions**
Wei-Min Wang

12:00 **Quasi-periodic Breathers for Klein-Gordon chains and discrete nonlinear Schrödinger equations with quasi-periodic Potential**
Chuanfang Ge

12:30–14:00 Lunch break

14:00 **Co-orbital solutions in the planar three-body problem**
Patricia Yanguas

14:30 **Quasiperiodic motion in a planar Sun-Jupiter-Saturn system**
Alex Haro

15:00 **Nekhoroshev estimates for multi-scale Hamiltonian systems**
Lu Xu

15:30 **Discussion**

16:00–16:30 Coffee break and posters

D12| COMPUTER-ASSISTED PROOFS IN DIFFERENTIAL EQUATIONS

Hall RB 212 | Chairs: Jean-Philippe Lessard

10:30 **An Introduction to Computer-Assisted Proofs in Differential Equations**
Jean-Philippe Lessard

11:00 **Computer-assisted proofs for PDEs: a matrix-free approach**
Maxime Breden

11:30 **Periodic solutions in state-dependent delay differential equations**
Matthieu Cadiot

12:00 **Validated numerics for convolutions in the Borel plane**
Jason Mireles James

12:30–14:00 Lunch break

D11| NONLOCAL EFFECTS IN DIFFERENTIAL EQUATIONS

Hall RB 212 | Chairs: Tetsuya Ishiwata, Tatsuki Kawakami

14:00 **Existence and uniqueness of L^1-solutions to time-fractional nonlinear diffusion equations**
Tatsuki Kawakami

14:30 **On the singularities in area-preserving curvature flows of convex symmetric immersed closed plane curves**
Takeo Ushijima

15:00 **Fractional Model of Danckwerts Tubular Catalytic Reactor**
Jaromir Kukal

15:30 **Blow-up problems to some delay differential equations**
Tetsuya Ishiwata

16:00–16:30 Coffee break and posters

D10| OSCILLATION THEORY FOR DIFFERENTIAL EQUATIONS ON HYBRID TIME DOMAINS

Hall RB 213 | Chairs: Roman Šimon Hilscher

10:30 **Generalized oscillation theory for canonical differential systems on hybrid time domains**
Roman Šimon Hilscher

11:00 **Floquet Theory and Exponential Stabilization of Impulsive Second-Order Delay Differential Equations**
Sergey Malev

11:30 **Renormalized Oscillation Theory for Hamiltonian Pencils**
Alim Sukhtayev

12:00 **On an optimal strict Sturm majorant condition for second order linear differential equations**
Peter Sepitka

12:30–14:00 Lunch break

D54| CONTRIBUTED TALKS, ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 213 | Chairs: TBA

14:00 **About properties of ultrametric meromorphic solutions of some types of difference equations**
Tahar Zerzaihi

14:20 **Bifurcations of Limit Cycles in DDEs: Theory & Software**
Bram Lentjes

14:40 **On Observability of Limit Cycles in the Chemostat**
Torsten Lindström

15:00 **Controllability problem of a differential equation with memory**
Sumit Arora

15:20 **Robustness of Sacker-Sell trichotomy for nonautonomous dynamics**
Davor Dragičević

15:40 **Localization of solutions in annular regions times conical shells for systems with sign-changing nonlinearities**
Jorge Rodríguez-López

16:00–16:30 Coffee break and posters

16:30–18:10 Contributed talks

P57 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB A | Chairs: TBA

16:30 **Evolutionary equations with state-dependent delay**
Bernhard Aigner

17:50 **Criteria for Controllability of Semilinear Measure-Driven Evolution Systems with Impulses and Nonlocal Inclusions**
Jaydev Dabas

17:10 **Regularity lost: the fundamental limitations and constraint qualifications in the problems of elastoplasticity**
Ivan Gudoshnikov

17:30 **Extinction, persistence and pattern formation in non-linear models with non-local dispersal on flat landscapes**
Maciej Tadej

P58 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB B | Chairs: TBA

16:30 **Analysis of anisotropic and heterogeneous models with applications to complex materials**
Kateryna Buryachenko

16:50 **Temple-Type Systems with Discontinuous Flux**
Massimiliano Daniele Rosini

17:10 **A Variational View on Constitutive Laws in Parabolic Problems**
Espen Xylander

17:30 **About the occurrence of Akhmediev breathers in general dispersive systems**
Nils Thorin

P59 | PARTIAL DIFFERENTIAL EQUATIONS

Hall NB C | Chairs: TBA

16:30 **The energy-variational framework for binormal curvature flow**
Thomas Eiter

16:50 **Singular vortical flows**
Volker Elling

17:10 **On the mean curvature flow of closed curves evolving on surfaces and two dimensional manifolds**
Miroslav Kolar

17:30 **Optimal control problem for a nonlinear, nonlocal evolution system describing an interacting ternary mixture**
Arghya Kundu

17:50 **On the Modeling of Thermal Effects in Forchheimer Flow**
Luka Tolj

N54 | NUMERICAL ANALYSIS

Hall RB 101| Chairs: TBA

16:30 **Unconditionally stable numerical solution for the high-order Allen-Cahn equation**
Seungyoon Kang

16:50 **Thermodynamical Allen-Cahn equation with general polynomial free energy**
Gyeonggyu Lee

17:10 **A parabolic-elliptic-hyperbolic system of Keller-Segel type: numerical analysis and simulation**
José Augusto Ferreira

17:30 **The linearized Westervelt-Pennes bioheat system: numerical analysis and simulation**
Gonçalo Pena

17:50 **Data-Driven Stabilization Parameters for CDR Equations on General Meshes**
Manoj Prakash

N55 | NUMERICAL ANALYSIS

Hall RB 209| Chairs: TBA

16:30 **Trefftz Discontinuous Galerkin Approximation of the T-Matrix for Scattering by Periodic Layered Structures**
Armando Maria Monforte

16:50 **A fully discrete weak Galerkin mixed approximation for parabolic interface problems on polygonal meshes**
Amit Kumar Pal

17:10 **A posteriori algebraic error estimates and nonoverlapping domain decomposition in mixed formulations: energy coarse grid balancing, local mass conservation on each step, and line search**
Akram Beni Hamad

17:30 **A priori and a posteriori estimates for vectorial problems via convex duality**
Pablo Alexei Gazca Orozco

17:50 **An alternative model of multicomponent diffusion based on a combination of the Maxwell-Stefan theory and continuum mechanics**
Jiří Mikyška

N56 | NUMERICAL ANALYSIS

Hall RB 210| Chairs: TBA

16:30 **Criteria for asymptotic stability of three-term linear difference equation with two parameters**
Petr Tomášek

16:50 **Fractional SIR model with distributed contacts**
Bárbara Rodrigues

17:10 **Optimal Time-Adaptivity for Parabolic Problems with applications to Model Order Reduction**
David Niederkofler

17:30 **Transport of scalar quantities along evolving planar curves and its numerical solution**
Maneesh Narayanan

17:50 **Stability of equilibria in an infinite dimensional network of theta neurons with time delay**
Lavinia Florina Rodica Fildan (Birdac)

D55 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 211| Chairs: TBA

16:30 **Robust Stability of a Class of Complex Balanced Chemical Reaction Networks with Time Delays and Time Varying Perturbations**
Hirokazu Komatsu

16:50 **Symbolic dynamics in Pseudospectral projection of Delay Differential Equations**
Robert Szczelina

17:10 **Voter model with time dependent dynamics**
Peter Malárik

17:30 **Finitude of limit cycles of linear piecewise ODEs in the cylinder**
Roberto Trinidad-Forte

D56 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 212| Chairs: TBA

16:30 **Regularity of Lagrangian flows associated to singular vector fields**
Henrique Borrin de Souza

16:50 **Applications of Coincidence Degree Theory to Fractional Boundary Value Problems and Non-Autonomous Ecological ODE Models**
Satyam Narayan Srivastava

17:10 **Nonlinear systems of ODEs subject to non-local boundary conditions**
Lucía López Somoza

17:30 **Weakly nonlinear degenerate differential-algebraic boundary value problems**
Olga Nesmelova

D57 | ORDINARY DIFFERENTIAL EQUATIONS

Hall RB 213| Chairs: TBA

16:30 **Multiple solutions of Dirichlet problems in billiard spaces with impulses at fixed times**
David Švec

16:50 **Multiplicity of solutions for nonlinear differential systems using fixed point theory in product spaces**
Laura María Fernández-Pardo

17:10 **Chaos in the Hyperion tumbling model**
Anna Gierzkiewicz

17:30 **Functional equations involving reflection and piecewise constant arguments**
Paula Cambeses Franco

FRIDAY, JULY 3, 2026

9:00–11:30 Invited lectures

Vencovského Hall | Chairs: TBA

9:00 **Global solvability of the Q-tensor model for nematic liquid crystals**
Miho Murata

9:40 **Fisher's infinitesimal model features a nice convexity structure**
Vincent Calvez

10:20–10:50 Coffee break

10:50 **The Hunter–Saxton equation - wave breaking leads the way**
Katrin Grunert´

9:00–11:30 Invited lectures

Hall NB B | Chairs: TBA

9:00 **The strong unstable manifold and periodic solutions in differential delay equations with cyclic monotone negative feedback**
Bernhard Lani-Wayda

9:40 **Continuous and discrete time dynamics of regulatory networks**
Tomas Gedeon

10:20–10:50 Coffee break

10:50 **Exploring the relativistic Kepler problem: A journey through bounded orbits and bifurcation phenomena**
Guglielmo Feltrin

9:00–11:30 Invited lectures

Hall RB 101 | Chairs: TBA

9:00 **Funny things happening in Neural Galerkin Schemes**
Olga Mula Hernandez

9:40 **New Banach spaces-based mixed finite element methods for steady-state flows of magnetic fluids**
Gabriel N. Gatica

10:20–10:50 Coffee break

10:50 **Multiharmonic algorithms for contrast-enhanced ultrasound**
Vanja Nikolić

11:40–12:40 Plenary lecture

Vencovského Hall | Chairs: TBA

Modeling human brain function and pathways of neurodegeneration
Paola F. Antonietti

12:40–12:50 Closing ceremony

Vencovského Hall | Chairs: TBA

12:50–14:00 Lunch