29 May 9:00-9:30 9:30-10:15

10:15-10:45 11:00-11:30

11:30-12:15

12:15-13:00



Introduction and Welcome by IMAG staff Juan Luis Vazquez

Nonlinear Diffusion Equations driven by Fractional Operators

COFFEE BREAK

Xavier Fernández-Real

Infinite-width limit of deep linear neural networks

Matteo Muratori

Nonlinear diffusion on Riemannian manifolds: a strong connection with stochastic incompleteness

Bruno Volzone

Recent developments on some nonlinear anisotropic diffusion equations

13:15-14:45

14:45-15:30

15:30-16:00

16:00-16:30 16:30-17:00

17:00-17:30

LUNCH

Jean Dolbeault

Nonlinear diffusions, entropies and stability in functional inequalities

Federico Franceschini

A case study for free boundary regularity: the obstacle problem

COFFEE BREAK

Megan Griffin-Pickering

Recent results on the quasi-neutral limit for the ionic Vlasov-Poisson system

Raphael Winter

Well-posedness of the Lenard-Balescu equation with smooth interactions

30 May 9:00-9:45

9:45-10:30

10:30-11:00 11:15-11:45

11:45-12:15

12:15-13:00



Giuseppe Savare

A Lagrangian approach to dissipative evolutions of probability measures

Alexander Mielke

EDP-convergence for gradient systems and Non-Equilibrium Steady States

COFFEE BREAK

David Gómez Castro

Newtonian vortex equations with non-linear mobility

Emanuela Radici

Stability of quasi-entropy solutions for nonlocal scalar conservation laws

Adriana Garroni

Homogenisation of non local phase transition models and application to crystal plasticity

13:00-13:15 13:15-14:45 14:45-15:30

15:30-16:00

16:00-16:30 16:30-17:00

17:00-17:30

17:30-18:00

GROUP PHOTO

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Simone Di Marino

On curvature and Five Gradients Inequality on Manifolds

Stephan Wojtowytsch

Convergence to an invariant distribution for stochastic gradient descent

COFFEE BREAK

Gissell Estrada-Rodriguez

Diffusion and superdiffusion in complex domains: Introduction of a networks of subdomains

Nikita Simonov

Stability in Gagliardo-Nirenberg-Sobolev inequalities

Alexandre Rege

Propagation of velocity moments for the magnetized Vlasov-Poisson system

31 May

9:00-9:45

9:45-10:30

10:30-11:00

11:15-11:45

José Carrillo

Criticality in Cahn-Hilliard models: a gradient flow perspective

Yao Yao

Suppression of chemotactic blow up by active advection

COFFEE BREAK

Markus Schmidtchen

A Degenerate Cross-Diffusion System as the Inviscid Limit of a Nonlocal Tissue Growth Model



11:45-12:15

12:15-13:00

13:15-14:45

Antonio Esposito

Graph-to-local limit for the nonlocal interaction equation

Filippo Santambrogio

New Lipschitz estimates in nonlinear diffusion

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FREE AFTERNOON

9:00-9:45

June

9:45-10:30

10:30-11:00 11:15-11:45

11:45-12:15

12:15-13:00

Francois Golse

Local Regularity for the Landau Equation

Maria Gualdani

Recent results on the spatial homogeneous Landau equation

COFFEE BREAK

Josephine Evans

Existence and stability of a non-spatially homogeneous non-equilibrium steady state for a BGK model coupled to a thermostat

Matias Delgadino

Propagation of chaos for weakly interacting diffusions

Clement Mouhot

13:15-14:45 14:45-15:30

15:30-16:00

16:00-16:30 16:30-17:00

17:00-17:30

Trajectory approach to De Giorgi theory

LUNCH Dejan Slepcev

Geometry of sliced optimal transport and projected-transport gradient flows

Nicolas García Trillos

Adversarial training through the lens of optimal transport

COFFEE BREAK

Matthew Jacobs

Lagrangian solutions to the Porous Media Equation (and friends)

Rupert Frank

Fast diffusion leads to partial mass concentration in Keller-Segel type stationary solutions

2 June



9:15-10:00

10:00-10:30

10:30-11:00

11:00-11:45

11:45-12:15

Laurent Desvillettes

Fast reaction limits leading to cross diffusion systems

Havva Yoldaş

Coarse-graining of particle interactions via anisotropic repulsion potentials

COFFEE BREAK

José A. Cañizo

Stability and instability for the nonlinear integrate-and-fire neuron model

Angeliki Menegaki

12:15-13:00

13:15-14:45

Quantitative framework for hydrodynamic limits

Irene M. Gamba

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Weak turbulence modeled by quasilinear diffusion for electrostatic and highly magnetized plasma systems