

**International Conference on Evolution Equations
Vanderbilt University, May 16-20, 2016**

Monday, May 16			
08:00-09:00	Coffee, Registration (Wilson Hall)		
09:00-09:10	Opening (Wilson Hall 103)		
09:20-10:00	Peter Constantin : Nonlocal evolution equations, electroconvection		
10:00-10:30	Coffee break		
10:30-12:30	<p style="text-align: center;">Wilson Hall 103</p> <p style="text-align: center;">Analysis and control of PDE evolutions with an interface-I (Lasiacka)</p> <p>Lorena Bociu: Control and sensitivity analysis in fluid-elasticity interactions</p> <p>Jameson Graber: Attractors for strongly damped wave equations with nonlinear hyperbolic dynamic boundary conditions</p> <p>Scott Hansen: Boundary control of Schrödinger and heat equations with point-mass interfaces</p> <p>Louis Tebou: Stabilization of a transmission system involving thermoelasticity</p>	<p style="text-align: center;">Wilson Hall 115</p> <p style="text-align: center;">Analysis of fluid flow-I (Shkoller & Vicol)</p> <p>Tarek M Elgindi: The inverse Laplacian on bounded functions</p> <p>Rafael Granero-Belinchón: The inhomogeneous Muskat problem</p> <p>Mihaela Ignatova: Almost global existence of the Prandtl equations</p> <p>Fei Wang: Sobolev stability threshold for 2D shear flows near Couette</p>	<p style="text-align: center;">Wilson Hall 113</p> <p style="text-align: center;">Fluids and geometry (Disconzi)</p> <p>Mihaela Ifrim: Two dimensional gravity water waves with constant vorticity: I. Cubic lifespan</p> <p>Leandro Lichtenfelz: Normal forms for the L^2 Riemannian exponential map on diffeomorphism groups.</p> <p>Stephen Preston: Euler-Arnold equations and Teichmüller theory</p> <p>Andrei Tarfulea: Front propagation and symmetrization for the fractional Fisher-KPP equation</p>
12:30-02:00	Lunch break		
02:00-02:40	Vlad Vicol : On the vanishing viscosity limit for the Navier-Stokes equations		
02:50-03:30	Steve Shkoller : Fluid-fluid and fluid-solid interfaces and a model for Rayleigh-Taylor instability		
03:30-04:00	Coffee break		
04:00-6:00	<p style="text-align: center;">Wilson Hall 103</p> <p style="text-align: center;">Analysis and control of PDE evolutions with an interface-II (Lasiacka)</p> <p>Mihaela Ignatova: On the local existence of the free surface Euler equation with surface tension</p> <p>Catherine Lebedzik: Global solutions in quasilinear thermoelasticity</p> <p>Malgorzata Peszynska: Modeling biofilm evolution with a variational inequality</p> <p>Ralph Showalter: Single-phase flow in thermo-poro-elastic media</p>	<p style="text-align: center;">Wilson Hall 115</p> <p style="text-align: center;">Analysis of fluid flow-II (Shkoller & Vicol)</p> <p>Klaus Widmayer: Convergence to stratified flow for an inviscid 3D Boussinesq system</p> <p>Michele Coti Zelati: Stochastic perturbations of passive scalars and small noise inviscid limits</p>	

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Tuesday, May 17			
08:00-08:30	Coffee		
08:30-09:10	Andrea L. Bertozzi : Geometric graph-based methods for high dimensional data		
09:20-10:00	Joachim Escher : Geodesic flows on Fréchet-Lie groups		
10:00-10:30	Coffee break		
10:30-12:30	Wilson Hall 103	Wilson Hall 115	Wilson Hall 113
	<p style="text-align: center;">Analysis and control of PDE evolutions with an interface-III (Lasiecka)</p> <p>Mary Ann Horn: Mathematical challenges arising from the questions of controllability for mixed structures</p> <p>Daniel Toundykov: The discrete inf-sup inequality for finite-element solutions of fluid-structure interaction problems</p> <p>Justin Webster: An effective decomposition of flow-plate dynamics for strong stability</p>	<p style="text-align: center;">Qualitative properties of solutions to free boundary problems (Escher)</p> <p>Gabriele Bruell: Weak solutions to a two-phase thin film equation with insoluble surfactant</p> <p>Anna Geyer: On periodic traveling waves of the Camassa-Holm equation</p> <p>Christina Lienstromberg: On qualitative properties of solutions to microelectromechanical systems with general permittivity</p> <p>Bogdan Matioc: A domain of parabolicity for the Muskat problem</p>	<p style="text-align: center;">Mathematical and general relativity (Disconzi)</p> <p>Xinliang An: On gravitational collapse in general relativity</p> <p>Moritz Reintjes: Is spacetime locally inertial for general relativistic shock wave solutions?</p> <p>Mihai Tohaneanu: Pointwise decay for the Maxwell system on black holes</p> <p>Willie Wong: A choice-free black box for obtaining the maximal globally hyperbolic Cauchy development</p>
12:30-02:00	Lunch break		
02:00-02:40	Pierre Germain : High frequency dynamics for NLS on a torus		
02:50-03:30	Jared Speck : Shock formation in nearly plane symmetric solutions to quasilinear wave equations		
03:30-04:00	Coffee break		
04:00-05:00	<p>Shanks Lecture</p> <p>Lawrence C Evans: Hidden convexity for nonlinear PDE</p>		
05:00-06:30	Reception (Wilson Hall)		

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Wednesday, May 18			
08:00-08:30	Coffee		
08:30-09:10	Nader Masmoudi : Stability of the 3D Couette flow		
09:20-10:00	Anna Mazzucato : Heat kernels, maximal regularity, and semi-linear parabolic equations on non-compact manifolds		
10:00-10:30	Coffee break		
10:30-12:30	Wilson Hall 103 Celebrating the work of Jan Prüss-I	Wilson Hall 115 Euler equation and related models (Masmoudi)	Wilson Hall 113 Singular problems in fluid mechanics (Mazzucato)
	<p>Jürgen Saal: Analysis of a living fluid continuum model</p> <p>Matthias Köhne: Optimal estimates for multiplication and analytic Nemytskij operators in anisotropic function spaces</p> <p>Patrick Guidotti: Domain variations and the linearization of moving boundary problems</p> <p>Christoph Walker: A free boundary problem modeling MEMS</p>	<p>Tristan Buckmaster: Onsager's conjecture</p> <p>Tarek M Elgindi: Illposedness results for the incompressible Euler equations in critical spaces</p> <p>Zineb Hassainia: On the 2D isentropic Euler system with unbounded initial vorticity</p> <p>Benjamin Harrop-Griffiths: The lifespan of small solutions to the KP-I</p>	<p>Gung-Min Gie: Boundary layer analysis of the linearized Navier-Stokes equations</p> <p>Luan Hoang: Asymptotic expansion for solutions of Navier-Stokes equations with a non-potential body force</p> <p>Changbing Hu: The 3D steady and unsteady primitive equations of the ocean</p> <p>Vincent R Martinez: On Gevrey regularity of the supercritical SQG equation</p>
12:30-02:00	Lunch break		
02:00-02:40	Wilhelm Schlag : Long term dynamics of nonlinear dispersive evolution equations		
02:50-03:30	Spyros Alexakis : Singularity formation in black hole interiors		
03:30-04:00	Coffee break		
04:00-06:00	Wilson Hall 103 Celebrating the work of Jan Prüss-II	Wilson Hall 115 Qualitative study of the Navier-Stokes, Euler and related geophysical systems-I (Titi)	Wilson Hall 113 Contributed talks
	<p>Michael Renardy: Interior local null controllability of one-dimensional compressible flow near a constant steady state</p> <p>Roberto Triggiani: Heat-structure interaction: optimal rational decay rate by microlocal analysis</p> <p>Amru Hussein: Global strong L^p well-posedness of the 3D primitive equations</p> <p>Martin Saal: Exponential stability of a thermoviscoelastic mixture with second sound</p>	<p>Animikh Biswas: Determining modes for the statistical solutions of the Navier-Stokes equations</p> <p>Tarek M Elgindi: Sharp L^p estimates for singular transport equations</p> <p>Adam Larios: The weak sigma-attractor for the semi-diffusive 2D Boussinesq equations</p> <p>Michele Coti Zelati: Enhanced dissipation, hypoellipticity and mixing in shear flows</p>	<p>Yuan-Jen Chiang</p> <p>Matthew Fury</p> <p>Julien Guillod</p> <p>Chenyun Luo</p> <p>Marcella Noorman</p> <p>Kazuo Yamazaki</p> <p>Bingsheng Zhang</p> <p>Qingxia Li</p>

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Thursday, May 19		
08:00-08:30	Coffee	
08:30-09:10	Matthias Hieber: Dynamics of the Ericksen-Leslie model for nematic liquid crystal flow	
09:20-10:00	Dieter Bothe: On mass-transfer across clean / contaminated fluid interfaces	
10:00-10:30	Coffee break	
10:30-12:30	Wilson Hall 103 Celebrating the work of Jan Prüss-III	Wilson Hall 115 Nonlinear waves-I (Tataru & Bejenaru)
	<p>Rico Zacher: Stability, instability, and blowup for non-local in time reaction-diffusion equations</p> <p>Mathias Wilke: On the Westervelt equation with absorbing boundary conditions</p> <p>Marie-Luise Hein: The Hartman-Grobman theorem for semilinear hyperbolic evolution equations</p> <p>Roland Schnaubelt: Error analysis of the ADI splitting method for the Maxwell equations</p>	<p>Jeremy L Marzuola: Ground states and bifurcation for NLS on a closed graph</p> <p>Jason Metcalfe: Local well-posedness for quasilinear Schrodinger equations</p> <p>Mihai Tohaneanu: Global existence for quasilinear wave equations close to Schwarzschild</p> <p>Klaus Widmayer: Stability of solutions to a beta-plane equation</p>
12:30-02:00	Lunch break	
02:00-02:40	Irena Lasiecka: How to stabilize a 3-D Navier Stokes equation with a finite dimensional boundary feedback controller?	
02:50-03:30	Edriss S. Titi: Is dispersion a stabilizing or destabilizing mechanism?	
03:30-04:00	Coffee break	
04:00-6:00	Wilson Hall 103 Celebrating the work of Jan Prüss-IV	Wilson Hall 115 Qualitative study of the Navier-Stokes, Euler and related geophysical systems-II (Titi)
	<p>Senjo Shimizu: Two-phase flows with phase transitions</p> <p>Luca Lorenzi: Evolution systems of measures and asymptotic behaviour in linear non-autonomous Kolmogorov equations</p> <p>Stig-Olof Londen: Regularity of stochastic integral equations driven by Poisson random measures</p> <p>Wolfgang M. Ruess: Linearized stability for nonlinear Volterra equations</p>	<p>Aseel Farhat: The space $B^{-1_\infty, \infty}$, volumetric sparseness, and 3D NSE</p> <p>Jinkai Li: Recent advances on the primitive equations of oceanic and atmospheric dynamics</p> <p>Cecilia F. Mondaini: A spatio-temporal discrete data assimilation algorithm for the 2D Navier-Stokes equations and statistics</p> <p>Kazuo Yamazaki: Recent developments on the magnetohydrodynamics and related systems</p>
06:30-9:00	Conference Banquet (at Cabana)	

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Friday, May 20	
08:00-08:30	Coffee
08:30-09:10	Daniel Tataru : Conservation laws in completely integrable pde's
09:20-10:00	Ioan Bejenaru : Multilinear restriction theory
10:00-10:30	Coffee break
10:30-12:30	Wilson Hall 103 Celebrating the work of Jan Prüss-V Jeremy LeCrone : Stability of cylinders in surface diffusion flow under general perturbations Yuanzhen Shao : Wellposedness of a nonlocal nonlinear diffusion equation of image processing Giusy Mazzone : On the motions of a liquid-filled rigid body around a fixed point
	Wilson Hall 115 Nonlinear waves-II (Tataru & Bejenaru) Benjamin Dodson : Type one and type two blowup for some dispersive equations Dana Mendelson : Random data Cauchy theory for some nonlinear wave equations Benjamin Harrop-Griffiths : An introduction to the finite depth gravity water waves in holomorphic coordinates Mihaela Ifrim : Finite depth gravity water waves in holomorphic coordinates

Last updated: May 10