

Emerging Paradigms in Nonlinear Science A Conference in Honor of Basil Nicolaenko And LANL-Arizona Days Timetable

All talks will be in the CNLS seminar room.

Jan. 25 Wednesday	Morning Session
09:30 - 10:00	<i>Refreshments and welcome</i>
10:00 - 10:50	Yannis Kevrekidis (Princeton) <i>Some Applications of Equation-free Computation</i>
10:50 - 11:00	break
11:00 - 11:50	George Papanicolaou (Stanford) <i>Interferometric Imaging</i>
12:00 - 14:00	Lunch

Jan. 25 Wednesday	Afternoon Session
14:00 - 14:50	Tai-Ping Liu (Stanford) <i>Boltzmann Equation, Green's Function Approach</i>
14:50 - 15:00	break
15:00 - 15:50	Francois Golse (Paris) <i>From the Quantum N-Body Problem to the Nonlinear Schroedinger Equation</i>
16:50 - 16:00	break
16:00 - 16:50	Michel Fremond (Paris) <i>A Paradigm in Rigid Bodies Motion: the Painlevé Sthenic Incompatibility</i>
18:30 -	Dinner at Central Avenue Grill

Jan. 26 Thursday	Morning Session
08:45 - 09:00	<i>Refreshments</i>
09:00 - 09:50	Steve Childress (Courant) <i>Vortex Pairing, Vorticity Growth, and Hovering Flight</i>
09:50 - 10:00	break
10:00 - 10:50	Joe Fernando (ASU) <i>Small-Scale Turbulence and Mixing in Stably Stratified Natural Shear Flows; Observations and Parameterizations</i>
10:50 - 11:00	break
11:00 - 11:50	Anatoli Babin (UC-Irvine) <i>Linear Superposition of Nonlinear Waves</i>
12:00 - 14:00	Lunch

Jan. 26 Thursday	Afternoon Session
14:00 - 14:50	Peter Constantin (Chicago) <i>Dynamics of Fokker-Planck Navier-Stokes Systems</i>
14:50 - 15:00	break
15:00 - 15:50	Claude Bardos (Paris) <i>Analyticity and Instabilities for Interfaces: From Kelvin-Helmholtz Instability to Water Waves</i>

Jan. 27 Friday	Morning Session 1
08:15 - 08:30	<i>Refreshments</i>
08:30 - 08:55	Nakul Chitnis (LANL and UA) <i>Using Mathematical Models in the Control of Malaria</i>
08:55 - 09:20	Julia Arciero (UA) <i>Role of Oxygen-dependent ATP Release by Red Blood Cells in Metabolic Regulation of Blood Flow</i>
09:20 - 09:30	break
09:30 - 09:55	Mudassar Imran (ASU) <i>A Model of Antibiotic Resistance in Biofilm</i>
09:55 - 10:20	Yun Kang (ASU) <i>Nonsmooth Dynamics on a 2-D Stoichiometry Model</i>
10:20 - 10:40	break

Jan. 27 Friday	Morning Session 2
10:40 - 11:05	Natali Gulbahce (LANL) <i>Overexpression of Genes in Metabolic Networks</i>
11:05 - 11:30	Tufail Malik (ASU) <i>A Resource-based Model of Microbial Quiescence</i>
11:30 - 13:30	Lunch

Jan. 27 Friday	Afternoon Session 1
13:30 - 13:55	Sergei Chumakov (LANL) <i>Statistics of Subgrid-scale Stress States in Isotropic Turbulence</i>
13:55 - 14:20	Mark Petersen (LANL) <i>The Holm-Alpha Model of Sub-grid Scale Turbulence in the POP Ocean Model</i>
14:20 - 14:30	break
14:30 - 14:55	Huidan Yu (LANL) <i>Lattice Boltzmann Method for Complex Flows</i>
14:55 - 15:20	Gowri Srinivasan (UNM) <i>Stochastic Modeling Of Coupled Nonlinear Chemical Reactions</i>
15:20 - 15:40	break

Jan. 27 Friday	Afternoon Session 2
15:40 - 16:05	Klaus Heinemann (UNM) <i>Reconsidering the Saldin-Schneidmiller-Yurkow Model</i>
16:05 - 16:30	Milos Ivkovic (UA) <i>A Method for Estimation of Achievable Information Rates of Long-Haul Optical Transmission Systems Using the Instanton Approach</i>
16:30 - 16:40	break
16:40 - 17:05	Tatiana T. Marquez Lago (UNM) <i>Stochastic Variation Estimates of Progesterone Transcriptional Activity in the EGFR Pathway</i>
17:05 - 17:30	Stephen Lau (UNM) <i>Numerical Solution of a Nonlinear Helically Reduced Wave Equation via a Spectral Method Based in Integration Preconditioning</i>

Jan. 28 Saturday	Morning Session 1
08:30 - 08:55	Andrey Sobol (UNM) <i>Colliding Particle Beams : 4D Simulations on Parallel Computers</i>
08:55 - 09:20	Jared Barber (UA) <i>Lagrangian Front Tracking and the Numerical Integration of Water Waves</i>
09:20 - 09:30	break
09:30 - 09:55	Matt Beauregard (UA) <i>Nonlinear Dynamics of Elastic Filaments</i>
09:55 - 10:20	Silvia Madrid-Jaramillo (UA) <i>Numerical Evaluation of the Evans Function : Instability of Local Deformations of an Elastic Rod</i>
10:20 - 10:40	break

Jan. 28 Saturday	Morning Session 2
10:40 - 11:05	Mike Twardos (LANL) <i>Experimental Studies in Two Dimensional Turbulence</i>
11:05 - 11:30	Antonio Rubio (ASU) <i>Axisymmetric Modes in Rotating Stratified Flows</i>
11:30 - 13:30	Lunch

Jan. 28 Saturday	Afternoon Session 1
13:30 - 13:55	Hussein Aluie (LANL and Johns Hopkins) <i>MHD Turbulence in a Strong Uniform External Magnetic Field</i>
13:55 - 14:20	Andras Libal (LANL and Notre Dame) <i>Dynamics, Rectification and Fractionation for Colloids on a Flashing Substrate</i>
14:20 - 14:30	break
14:30 - 14:55	Irina Vasileva (UNM) <i>Force Inversion in Floating Plate Dynamics</i>
14:55 - 15:20	Monika Nitsche (UNM) <i>Regularisations of Vortex Sheet Motion</i>
15:20 - 15:40	break