Texas Analysis and Mathematical Physics Symposium (TexAMP) 2017

Friday, November 3

15:00-15:40 Arrival and Registration, RLM 5.114

15:40-16:30, RLM 6.104: Christof Sparber (University of Illinois, Chicago)
Weakly nonlinear time-adiabatic theory

17:10-18:00, RLM 6.104: Lenya Ryzhik (Stanford University)
TBA

Saturday, November 4

09:00-09:50, RLM 4.102: Matei Machedon (University of Maryland)
Pair excitation and the mean field approximation of interacting Bosons I

10:10-11:00, RLM 4.102: Irina Nenciu (University of Illinois, Chicago)
TBA

11:10-12:00, RLM 4.102: Avy Soffer (Rutgers University)
Supercritical wave equations

14:00-14:50, RLM 4.102: Irene Gamba (University of Texas at Austin)
Common features between the quantum Boltzmann equation cold regimes and the wave
turbulence model for stratified flows

15:10-17:10 **Contributed Talks** in lecture rooms **RLM 5.116, 5.118, 5.120, 5.122, 5.124**

Sunday, November 5

09:00-09:50, RLM 4.102: Manoussos Grillakis (University of Maryland)
Pair excitation and the mean field approximation of interacting Bosons II

10:20-11:10, RLM 4.102: Michael Kiessling (Rutgers University)
General relativity at the (sub-)atomic scale

TexAMP 2017: Contributed Talks

Session 1 in RLM 5.116

15:10 - 15:30
Gokalp Alpan, Rice University
Orthogonal polynomials on generalized Julia sets

15:35 - 15:55
Valmir Bucaj, Rice University
Spectral localization for Bernoulli-Anderson model via positivity and large
deviations for the Lyapunov exponent

16:00 - 16:20
Manuela Girotti, Colorado State University
Smallest singular value distribution and large gap asymptotics for products of
random matrices

16:25 - 16:45
Artem Hulko, UNC Charlotte
On the number of eigenvalues of the discrete one-dimensional Schr\"odinger
operator with a complex potential

16:50 - 17:10
Tom VandenBoom, Rice University
Reflectionless discrete Schroedinger operators are spectrally atypical

17:15 Meet in front of RLM 4.102 to walk to the Conference Reception at the
Texas Union Sinclair Suite, UNB 3.128

TexAMP 2017: Contributed Talks

Session 2 in RLM 5.118

15:10 - 15:30
Siming He, University of Maryland
Suppression of Chemotactic blow up through fluid flow

15:35 - 15:55
Michael Hott, University of Texas at Austin
An interpolation result for the convergence to the Hartree dynamics in Sobolev trace norms

16:00 - 16:20
Donghong Zhao, University of Science & Technology, Beijing
A model combining a total variation and a fractional-order filter

16:25 - 16:45
Yulia Meshkova, St. Petersburg State University (Russia)
Operator estimates for homogenization of periodic hyperbolic systems

16:50 - 17:10
Jacky Chong, University of Maryland
Dynamics of Large Boson Systems with Attractive Interaction and a Derivation of the Cubic Focusing NLS in R^3

17:15 Meet in front of RLM 4.102 to walk to the Conference Reception at the Texas Union Sinclair Suite, UNB 3.128

TexAMP 2017: Contributed Talks

Session 3 in RLM 5.120

15:10 - 15:30
Sam Krupa, University of Texas at Austin
Single Entropy Condition for Burgers Equation via the Relative Entropy Method

15:35 - 15:55
Jin Woo Jang, IBS - Center for Geometry and Physics
On the relativistic Boltzmann equation without angular cutoff

16:00 - 16:20
Zhihong Zhao, University of Science & Technology, Beijing
Symmetry analysis of reaction diffusion equation with distributed delay

16:25 - 16:45
Jing Tian, Towson University
On the Solutions of the 2D Navier-Stokes Equations with Constant Energy and Enstrophy

16:50 - 17:10
Ryan Denlinger, University of Texas at Austin
The Wigner transform approach to kinetic theory: A partial review and new results

17:15 Meet in front of RLM 4.102 to walk to the Conference Reception at the Texas Union Sinclair Suite, UNB 3.128

TexAMP 2017: Contributed Talks

Session 4 in RLM 5.122

15:10 - 15:30
Jon Harrison, Baylor University
Relating zeta functions of discrete and quantum graphs

15:35 - 15:55
Pedro Morales, University of Texas at Austin
Spectral zeta function and vacuum energy of perturbed warped manifolds

16:00 - 16:20
Brian Simanek, Baylor University
Geronimus Polynomials and Chebyshev Polynomials

16:25 - 16:45
Juan Lopez, University of Houston
Finite energy solutions of axisymmetric div-curl systems on bounded domains

16:50 - 17:10
Erica Swindle, Baylor University
Quantum Circulant Graphs

17:15 Meet in front of RLM 4.102 to walk to the Conference Reception at the Texas Union Sinclair Suite, UNB 3.128

TexAMP 2017: Contributed Talks

Session 5 in RLM 5.124

15:10 - 15:30
Arun Debray, University of Texas at Austin
The Low-energy Limit of the Generalized Double Semion Model

15:35 - 15:55
Christoph Fischbacher, University of Alabama at Birmingham
Droplet states in the XXZ model on general graphs

16:00 - 16:20
Minh Kha, University of Arizona
Liouville-Riemann-Roch theorem on abelian coverings

16:25 - 16:45
Selim Sukhtaiev, Rice University
The Maslov index and the spectra of second order elliptic operators

16:50 - 17:10
Wei Wang, University of Science and Technology Beijing
Repulsion effect on superinfecting virions by infected cells for virus infection dynamic model with absorption effect and chemotaxis

17:15 Meet in front of RLM 4.102 to walk to the Conference Reception at the Texas Union Sinclair Suite, UNB 3.128