THE 2001 FLORIDA WORKSHOP IN NONLINEAR ASTRONOMY

NONLINEAR DYNAMICS IN GALAXIES AND EXO-SOLAR PLANETARY SYSTEMS

Talks are in general 40 minutes plus 10 minutes for questions.

All events are in the New Physics Building
Unless otherwise noted, all talks are in Room 2205

Thursday 15 February:

9:45-10:00: Opening remarks, etc.

10:00-10:50: George Contopoulos, University of Athens: Order and Chaos in Self-Consistent Galactic Models

10:50-11:20: Coffee Break

11:20-12:10: Andrea Milani, University of Pisa: Stable Chaos and Diffusion in the Asteroid Main Belt

12:10-2:30: Lunch

2:30-3:20: Philip Boyland, University of Florida: How Does Topology Influence Hamiltonian Dynamics?

3:20-4:05: Coffee Break

4:05-5:00: (JOINT AS PHYSICS COLLOQUIUM) in ROOM 1002
Daniel Pfenniger, Observatoire de Genève: The Highly Non-Linear Dynamics of Interstellar Matter

7:30-10:30: Informal Poster Session in ROOM 2165
Friday 16 February:

9:45-10:35: Ji Qiang, Los Alamos National Laboratory: Self-Consistent Modeling of Coulomb Collisions

10:35-11:05: Coffee Break

11:05-11:55: Richard Lovelace, Cornell University: Hamiltonians for Accretion Disk Modes

11:55-2:00: Lunch

2:00-2:50: Chris Hunter, Florida State University: Spectral Analysis of Orbits via Discrete Fourier Transforms

2:50-3:20: J. Robert Buchler, University of Florida: Characterizing the Underlying Chaotic Dynamics From a Scalar Time-series

3:20-3:50: Coffee Break

3:50-4:40: Renu Malhotra, University of Arizona: Resonance Sweeping Phenomena in the Solar System

7:30-: After Dinner Reception in ROOM 2175

Saturday 17 February:

9:45-10:35: Courtlandt Bohn, Fermilab: Chaotic-Mixing Time Scales in Charged-Particle Beams and Galaxies

10:35-11:05: Coffee Break

11:05-11:55: Glen Stewart, University of Colorado: Negative Energy Modes and the Nonlinear Evolution of Planetary Rings

11:55-2:00: Lunch

2:00-2:50: James Fry, University of Florida: Measuring Nonlinear Mode Couplings in Galaxy Redshift Catalogs

2:50-3:20: Richard Lovelace, Cornell University: Poynting Outflows and Jets from Accretion Disks

3:20-3:50: Coffee Break

3:50-4:40: Henry Kandrup, University of Florida: Noise, Graininess, and Phase Space Diffusion in the N-Body Problem