CPNLW-09 Solitons in their Roaring Forties : Coherence and Persistence in Nonlinear Waves

January 6-9 2009 University of Nice, France

PROGRAM:

Thusrday January 8th

Laser-matter interaction and nonlinear optics II, chairman M. P. Soerensen

- 9:00 9:30 Luc Berge Femtosecond filaments for pulse compression: Simulating a complete
- **9:30 9:55** Sonia Boscolo Parabolic optical pulses under the action of the third-order dispersion
- 9:55 10:20 Gilbert Reinisch Deriving the fine structure constant from quantum transitions between nonlinear eigenstates
- 10:20 10:45 Brenton LeMesurier Modelling Pulses in Molecular Chains and Conservative Time-Discrete Hamiltonian Systems

Dissipative solitons and nonlinear resonances II, chairman R. Grimshaw

- 11:05 11:35 Mads Peter Soerensen The effect of noise and coupling on beta cell excitation dynamics
- 11:35 12:00 Mustapha Tlidi

experiment

Dissipative localized structures and self-organization

12:00 12:25 Efim Pelinovski

Modelling resonances in fragmented solids

12:25 12:50 A. G. Vladimirov

Enhancement of interaction of dissipative solitons above self-pulsing instability treshold

Solitons: general properties and geometry II, chairman E. Pelinovski

- 14:15 14:40 Annalisa Calini KdV-Type Flows on Star-Shaped Curves
- 14:40 15:05 David Brander Soliton methods in Geometry
- 15:05 15:30 Jakub Lis Q-ball Ansatz in the scalar nonlinear electrodynamics - the case of the V-shaped matter potential
- 15:30 15:55 Michel Rascle Nonlinear Waves in Mathematical Models of Traffic Flow
- 16:15 16:40 Silvana DeLillo

An analytical model for synthetic- and bio- polymers based on continuous elastic rods: general framework and circular helix solutions

19:00 Welcome cocktail and conference dinner at the HOTEL MERIDIEN

Friday January 9th

Laser-matter interaction and nonlinear optics III, chairman N. Akhmediev

- 9:00 9:30 Arnaud Mussot Optical rogue waves and giant solitons
- 9:30 9:55 Sergey Skupin Azimuthons in nonlocal nonlinear media

9:55 10:20 Wieslaw Krolikovski

Optical solitons in nonlocal nonlinear media

Integrability II chairman I. Barashenkov

10:20 10:45 Boris Konopelchenko,

On operator representations of integrable equations

- 11:05 11:30 Robert Conte Analytic patterns of the four-wave mixing model Solitons and lattices, chairman K. Khusnutdinova
- 11:30 11:55 Guillaume James Time-periodic oscillations in weakly inhomogeneous nonlinear lattices
- 11:55 12:20 Nikos Efremidis Disordered lattice solitons

Nonlinear excitations in complex systems II

12:20 12:50 Harvey Segur

Explosive instability due to 3-wave or 4-wave mixing

14:30 15:00 Norman Zabusky Inhomogeneous and complex flows : Progress and Promise at high and low Reynolds number

15:00 15:10 Conclusion of the Conference