

Thursday 10.12.2015

**Morning session - Project DFNI-I02/9,
“Theoretical and Numerical Investigation of Nonlinear Mathematical Models”**

Chairman: K. Ivanov

9:00 - 9:20 M. Todorov

Soliton Dynamics and Interaction of Vector Schroedinger Equation. Consistency and Integrability

9:20 – 9:40 N. Kutev, N. Kolkovska, M. Dimova

Orbital stability of solitary wave pulses in biomembranes

9:40 – 10:00 N. Kolkovska

Numerical computation of the critical energy constant for two-dimensional Boussinesq equations

10:00 – 10:20 M. Dimova, N. Kutev, N. Kolkovska

Improved concavity method and application to nonlinear dispersive equations

10:20 – 10:40 Coffee break

Chairman: N. Kutev

10:40 – 11:00 I. Hristov, R. Hristova, S. Dimova ([Abstract](#))

Cavity and background oscillations in Intrinsic Josephson Junctions

11:00 – 11:20 E. Bazhlekova ([Abstract](#))

Fractional order equations in the modelling of unidirectional viscoelastic flows

11:20 – 11:40 I. Bazhlekov, D. Vasileva ([Abstract](#))

Mathematical modeling of the effect of biosurfactants in multiphase flows

11:40 – 12:00 P. Boyvalenkov, P. Dragnev, D. Hardin, E. Saff, M. Stoyanova

Energy bounds for codes and designs on Euclidean spheres

12:00 – 14:00 Lunch