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## Computational Mathematics Seminar Series

**Solitary wave solutions as inverse problem****Tchavdar Marinov, Southern University at New Orleans**

Assistant Professor of Mathematics

Johnston Hall 338  
February 07, 2012 - 03:30 pm**Abstract:**

A special numerical technique has been developed for identification of solitary wave solutions of Boussinesq and Korteweg--de Vries equations. Stationary localized waves are considered in the frame moving to the right. The original ill-posed problem is transferred into a problem of the unknown coefficient from over-posed boundary data in which the trivial solution is excluded. The Method of Variational Imbedding is used for solving the inverse problem. The generalized sixth order Boussinesq equation is considered for illustrations.

**Speaker's Bio:**

Dr. Marinov is an assistant professor of mathematics at Southern University, New Orleans. He has a Ph.D. degree in Applied Mathematics from Bulgarian Academy of Science and a Ph.D. degree in Mathematics from the University of Louisiana, Lafayette, two years postdoctoral research in Saitama Institute of Technology, Japan, and one year of research in University of Alberta, Canada. His main research interests are in the areas of Differential Equations and Numerical Analysis, especially Inverse and Ill-posed problems. His hobby is connected with Statistics.

**Refreshments will be served.**