



Institut für
Angewandte Mathematik



Leibniz
Universität
Hannover

Institut für Angewandte Mathematik
09.06.2011

Oberseminar Analysis und Theoretische Physik

Prof. Dmitry Pelinovsky
McMaster University (Canada)

“Global Existence and Wave Breaking in the Short-Pulse and Ostrovsky-Hunter Equations”

Abstract:

Sufficient conditions for wave breaking are found for the short-pulse equation describing wave packets of few cycles on the ultra-short pulse scale. The analysis relies on the method of characteristics and conserved quantities of the short-pulse equation and holds both on an infinite line and in a periodic domain. For small-norm initial data, global solutions of the short-pulse equation are constructed. Numerical illustrations of the finite-time wave breaking and modulated pulses are given in a periodic domain.

Dienstag, 12.07.2011, 15:15 Uhr, Raum G005
Hauptgebäude der Universität

Über Ihren Besuch würden sich freuen:

Prof. Dr. Joachim Escher
Prof. Dr. Bernhard Krötz
Prof. Dr. Olaf Lechtenfeld
Prof. Dr. Elmar Schrohe
Prof. Dr. Christoph Walker