



VIENNA
DOCTORAL
SCHOOL
MATHEMATICS

PhD Colloquium

Mateusz Piorkowski:

Woliton Resolution - When Waves behave like Particles

This talk will be concerned with Solitons. Localized, traveling, wave solutions of nonlinear wave equations, that in a sense behave like particles. They have been observed empirically for the first time as a single water wave in a canal in Scotland in 1834 by Scott Russell, and have been a source of great mathematical and physical interest ever since. I will mainly concentrate on the KdV (Korteweg-deVries) equation which is the first and simplest wave equation, for which soliton solutions have been found. My aim will be to give you a glimpse of this active area of research, and my focus will be on the question of the existence of a 'soliton resolution', i.e. an approximate decomposition of a large class of solutions into a finite number of solitons. .

31. October,

15:00-15:45

SkyLounge, OMP-1