

Avoiding order reduction when integrating nonlinear Schroedinger equation

Begoña Cano (Universidad de Valladolid)

In this talk a technique will be given to integrate nonlinear Schrödinger equation with nonhomogeneous Dirichlet boundary conditions using Strang method for the time integration. We will show that this procedure is second-order convergent. Moreover, we will state how to conserve the symmetry of the method although that will not assure a better long term behaviour.