



**Integrability Properties and Exact Solutions of a Hamiltonian System as  
Reductions of the Coupled Space-Dependent NLS System.**

**Faruk Güngör**

**İTÜ**

In this talk, I will start with a brief review of some old results on symmetry and solution properties (Hamiltonian structure, conservation laws) and implications of the nonlinear Schrödinger (NLS) equation and its two-component (coupled) version. Then, I will proceed to discuss (modulated amplitude) wave type solutions of the inhomogeneous coupled NLS equations by analysing algebraic integrability (or superintegrability) of a nonautonomous dynamical system.

**Tarih: 30 Nisan 2025 Çarşamba**

**Saat: 14:30-15:30**

**Yer: Fen-Edebiyat Fakültesi B1-326**

**İletişim: [curan@itu.edu.tr](mailto:curan@itu.edu.tr)**