



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

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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.

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Yer: Fen-Edebiyat Fakültesi B1-326

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