

数学与系统科学研究院

计算数学所学术报告

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报告题目: **N-Dark-Dark Solitons in
the Generally Coupled Nonlinear
Schrodinger Equations**

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报告地点: **科技综合楼四层 401 教室**

Abstract:

N-dark-dark solitons in the generally coupled integrable NLS equations are derived by the KP-hierarchy reduction method. These solitons exist when nonlinearities are all defocusing, or both focusing and defocusing nonlinearities are mixed. When these solitons collide with each other, energies in both components of the solitons completely transmit through. This behavior contrasts collisions of bright-bright solitons in similar systems, where polarization rotation and soliton reflection can take place. It is also shown that in the mixed-nonlinearity case, two dark-dark solitons can form a stationary bound state. This is joint work with Y. Ohta and D.S. Wang.

欢迎大家参加!