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PROGRESS IN INTEGRABLE LATTICE MODELS INSPIRED BY SUPERSYMMETRIC GAUGE THEORIES

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Abstract

Recently, there has been observed several connections of integrable models to supersymmetric gauge theories. One of such connections is a correspondence between supersymmetric quiver gauge theories and integrable lattice models such that the integrability emerges as a manifestation of supersymmetric dualities. Particularly, partition functions of three-dimensional $N = 2$ supersymmetric quiver gauge theories on different manifolds can be identified with partition functions of two-dimensional exactly solvable statistical models. Using this relationship one can obtain new solutions of the star-triangle relation and other forms of the Yang-Baxter equation.

Date : Thursday, December 15, 2016

Time: Part I: Integrability, 11:00-12:30

Part II: Supersymmetry, 14:30-16:00

Place: IMBM Seminar Room, Boğaziçi University