

MATH COLLOQUIUM

Quantization and superization

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Date : Wednesday, March 17, 2010

Time : 14:00

Place : TB 250, Boğaziçi Üniversitesi

Abstract: Differential geometry and Lie theory have traditionally provided the mathematical framework for our most intuitive physical theory: classical mechanics. However, as is well-known, in the last century physicists have developed newer theories which incorporate different kinds of symmetries, and bold concepts like the uncertainty principle have arisen that need to be addressed mathematically. Mathematical physicists' response has been a constant search for methods of quantization and superization, thus allowing the integration of older techniques into these newer, broader theories. This talk will explain one part of this story in more detail. In particular we will describe super quantum group theory, an eclectic collection of theorems and conjectures whose development is very much still in progress, but one that promises a solution to some foundational questions in mathematical physics. The mathematical background needed is limited, the physical background needed is none; the main prerequisite for this talk is a curious mind which is willing to accommodate some occasional vague language.

Tea and coffee will be served at 15:00