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Food For Thought Seminar

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Fun with Quantum Symmetry Groups

Abstract:

Originally, groups emerged in mathematics as structures describing the symmetries of all kinds of objects. Nowadays we of course also have an abstract definition of a group. It is this abstract description that recently has been exploited to generalize things to the notion of so-called quantum groups. Once a good definition of a quantum group was established, people tried to reverse the process and see quantum groups as describing symmetries of various objects.

In this talk we will 1) try to understand the definition of a (compact) quantum group, 2) discuss several examples, and 3) see how we can define quantum symmetry groups via actions of quantum groups on various spaces.

Everybody is welcome! Necessary background beyond undergraduate analysis and algebra will be provided during the talk.

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