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THE NOISE SENSITIVITY OF BOSONSAMPLING

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Abstract

The peculiar statistical behavior of Boson particles, which is very different from that of any classical particles, was suggested as a basis for a demonstration of a simple quantum machine that cannot be simulated by classical computational device. In a work with Gil Kalai we show some limitations on this approach by analyzing the sensitivity of such a machine to imperfections and noise.

In the talk I will assume no prior knowledge of quantum mechanics.

Date : Thursday, October 2, 2014

Time: 15:30-16:30

Place: IMBM Seminar Room, Boğaziçi University South Campus