



Mathematisches Kolloquium

Bitte beachten Sie die geänderte Uhrzeit!

Am Freitag, dem 12. Januar 2018 spricht um **12:30 Uhr s. t.** im Hörsaal IV der Fachrichtung Mathematik (Gebäude E24)

Prof. Dr. Aram Harrow
MIT, Massachusetts

über das Thema:

Convex Optimization and Quantum Information

Abstract: It is not so surprising that quantum mechanics presents hard new problems for optimization. For example, finding the lowest energy configuration of a physical system or simulating its dynamics both become more computationally difficult when we consider quantum systems. Less obvious is that the mathematics of quantum information can yield new methods of analyzing classical hard problems in optimization. In both directions, the link involves optimization problems related to norms of tensors and maximizing polynomials over many variables. I will survey connections in both directions and discuss some promising open problems.

The talk will not assume a background in quantum information theory. It is partly based on arXiv preprints 1205.4484, 1210.6367, 1310.0017 and 1509.05065.

Der Gast wird von JProf. Dr. Moritz Weber betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Kuchen im Anschluss an den Vortrag im Konferenzraum der Mathematik (Erdgeschoss, Raum103).

Die Dozenten der Mathematik