#### DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE UNIVERSITY OF SOUTHERN DENMARK, ODENSE

## Mathematics seminar

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# **Measuring entanglement**

## Thursday 23 November 2017, 14:15-16:00 IMADA seminar room

#### Abstract

Entanglements are the strong correlations that arise in quantum mechanics. Today we think of them as resources that are being consumed in quantum computation and communication. The teleportation of one qubit from Alice to Bob, for instance, requires one pair of entangled qubits. Measuring the amount of entanglement is thus an essential skill, not least for benchmarking current experiments. The colloquium gives a crash course in this skill.

The talk may be seen as a teaser for the paper

http://science.sciencemag.org/content/340/6137/1205 and the more recent developments in https://arxiv.org/abs/1709.07851