



Analysis Seminar

Title: Non-local games with quantum questions and answers

Speaker: Rupert Levene

Date: Tue 6th February 2024 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: Non-local games are cooperative games which are played using probabilistic strategies known as correlations. Individually, each of the players is given a question, and their answers are collected and then scored. It has proven fruitful to study the value (maximum average score) of these games for various different classes of correlations, such as those which arise by modelling players who cannot communicate with each other but share an entangled quantum state. We describe a generalisation in which we replace the usual 'classical' questions and answers with 'quantum' questions and answers. For several classes of strategies, we express the corresponding values using operator space tensor norms.

This is based on joint work with Jason Crann, Ivan Todorov and Lyudmila Turowska.

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