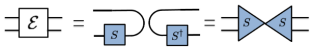

Celebrating the Choi-Jamiołkowski Isomorphism
Online Event
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Positive Maps and Entanglement in Real Hilbert Spaces

Thursday, 2 March 2023 17:35 (30 minutes)

Partially motivated by recent research in quantum physics, we take a closer look at the similarities and differences between the study of positive maps, separability, and entanglement in the real and complex case. It is possible for real matrices to be entangled as operators on a real Hilbert space and yet separable when regarded as acting on a complex space. These two distinct theories of entanglement in the real case correspond to two different theories of entanglement breaking maps in the real case. Finally, we see what these differences have to say about real versions of the PPT-squared conjecture. Based on joint research with G. Chiribella, K.R. Davidson, and M. Rahaman.

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