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【521】Informational restrictions in quantum correlations

Wednesday, 1 September 2021 17:00 (30 minutes)

We investigate the relationship between quantum correlations and the communication of quantum bits of information. We go beyond standard qubits and instead consider a more general notion of informational restriction which makes no reference to the dimension of Hilbert space. We show how to characterise such informationally restricted quantum correlations and how they qualitatively go beyond standard qubits. Finally, we discuss how this concept both accommodates and provides an alternative perspective on well-known concepts such as Bell nonlocality, quantum contextuality and quantum dense-coding.

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