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Quantum measures of correlation in time

Monday 23 September 2024 13:45 (35 minutes)

In my talk I will review the idea of pseudo-density matrices (PDMs), which are states of physical systems “stretching across” time. They arise by treating different instances of time as different Hilbert spaces connected by the usual tensor product structure that is normally used for spatial modes (i.e., different instances of time become different modes in this formulation). I will then talk about entropic measures of correlation as functions of PDMs. Various comparisons will be made with the traditional spatial measures of entanglement, discord and classical correlations.

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