



Quantum Computing Seminar

Contextuality as a resource for measurement-based quantum computation beyond qubits

By

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Abstract: When dealing with an MBQC with binary outcome measurements the following is true: a nonlinear function is computed if and only if the resource is strongly contextual. However, this tidy result does not remain true when the set of outcomes is $d > 2$. Frembs, et al. consider the more general case of d -outcome measurements and establish that strong contextuality is needed to compute functions (i.e., polynomials) of a certain degree not possible for the classical side-processor.

References: arXiv:1804.07364

Date: Friday, Feb 3, 2023

Time: 14:30

Place: SA141 - Mathematics Seminar Room