QUANTUM COMPUTING SEMINAR

Topological proofs of contextuality in quantum mechanics

By

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Abstract: Central to many of the paradoxes arising in quantum theory is that the act of measurement cannot be understood as merely revealing the pre-existing values of some hidden variables. This phenomenon is known as contextuality. Here we study an approach to characterizing contextuality using the tools of cohomology, and algebraic topology more generally. These tools will be later become useful in analyzing MBQC with flat temporal order.
References: arXiv:1701.01888
Additional Sources: arXiv:cond-mat/0301601

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