



# Quantum Computing Seminar

## Generalized Bell Inequality Experiments and Computation

By

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**Abstract:** In the simplified setting of non-adaptive MBQC the choice of measurement basis for one local system (e.g., qubit) does not depend on the outcomes of any previous measurements. Thus non-adaptive MBQC is similar in spirit to Bell-type experiments consisting of distant parties that do not communicate. Following Hoban, et al. we consider such Bell-type experiments and study the convex geometry of the corresponding local and nonlocal regions. Experimental setups with classical statistics that are explained by local hidden variable models (LVH) are found to have limited computational power, which are related to Bell-type inequalities.

References: arXiv:1009.5213

References: arXiv:1108.4798

**Date:** Friday, December 23, 2022

**Time:** 14:30

**Place:** SA141 - Mathematics Seminar Room