

Imprecise measurements in entanglement and steering tests

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The standard method for detecting entanglement and steering is via measuring suitable witness operators. This requires that some prescribed measurements are performed on the local systems. I discuss what happens when the assumption of perfect measurements no longer is employed but instead the measurements are allowed to have tiny imprecisions. I argue that small specific imprecisions can give rise to large corrections to witnesses, which makes it possible to fake large amounts of entanglement from tiny misalignments. I discuss how this problem can be addressed, and how cleverly chosen witnesses allow corrections to be made “for free”.

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Session Classification: Talks