
SEMINAR: Imprecise measurements in quantum correlations

ARMIN TAVAKOLI

July 08, 2024

15:00 to 16:00

Seminar Room

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 lead to unexpected plateau-phenomena that permit corrections to be made without any cost to detection ability.

Hosted by: Prof. Dr. Antonio Acín