
Contribution ID: **255** Type: **Poster**

# 【570】State transformations within entanglement classes containing permutation-symmetric states: 3- & 4-Qutrit Cases

*Tuesday, 31 August 2021 19:09 (1 minute)*

Permutation-symmetric states are both mathematically interesting and physically relevant. To understand these states better, it is important to study their entanglement properties and the allowed transformations via local operations assisted by classical communication (LOCC) which are the free operators in the resource theory of entanglement. We characterize the stabilizers of a large class of pure multipartite permutation-symmetric states and study state transformations restricted to finite-round LOCC within stochastic LOCC (SLOCC) classes that contain these states. In this poster, we focus only on 3- and 4-qutrit permutation-symmetric pure states and present their local symmetries and interesting LOCC transformations in details.

**Primary authors:** KRAUS, Barbara (University of Innsbruck); SPEE, Cornelia (University of Innsbruck); HEBENSTREIT, Martin (University of Innsbruck); LI, Nicky (University of Innsbruck); DE VICENTE, Julio (Universidad Carlos III de Madrid)

**Presenter:** LI, Nicky (University of Innsbruck)

**Session Classification:** Poster Session

**Track Classification:** Quantum Information and Quantum Computing