

**Q 31 Hauptvorträge III**

Zeit: Dienstag 10:00–10:45

Raum: HU Audimax

**Hauptvortrag**

Q 31.1 Di 10:00 HU Audimax

**On the creation and detection of multiparticle entanglement**  
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Entanglement is one of the most fascinating features of quantum theory. In the recent years it has become possible to generate various entangled states with more than two subsystems. This talk aims at presenting an overview over the current status of creating and detecting multiparticle entanglement with quantum-optical means. The significance of the generated states for quantum information processing tasks will be elucidated. For the detection of multiparticle entanglement, special emphasis will be given to the method of witness operators.