# FUNCTIONAL ANALYSIS AND OPERATOR THEORY WEBINAR

## The Bloch representation for qudits: overview and applications

### Marcus Huber

Insititute for Quantum Optics and Quantum Information, Austria

The Bloch representation for qubits is taught in every basic quantum mechanics course and for a good reason. It manages to visualise and elegantly describe important features of two-dimensional Hilbert spaces. Going to higher-dimensional or multipartite systems, the visualisation is of course more challenging, but a lot of convenient properties remain and can also be used to derive various results in quantum information. I will give a brief overview of the Bloch representation for qudits, showcase its most important properties and present two simple, yet powerful, applications in entanglement theory and entropy inequalities.

3 March 2021, 12:00 London time

You can join the event via this link:
https://istaustria.zoom.us/j/97256950873?pwd=bWd6U1kyVXZFQk1wNll5ZTlXTE1ZQT09
Meeting ID: 972 5695 0873
Passcode: 582736

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https://www.renyi.hu/~titkos/faot.html
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The slides and video recordings of all previous talks are available in this google drive folder:
https://drive.google.com/drive/folders/1Vo6musdFZwhsMmoD3OKuJQ35Q_IWSZwd