ICFO

QUANTUM SEMINAR: Probing the entanglement structure of quantum states via partial-transpose moments

BENOIT VERMERSCH

May 23, 2022
12:00 to 13:00
SMR & Online (Zoom)

Abstract:
I will discuss our works on partial-transpose (PT) moments, which are quantities that can be measured experimentally in existing quantum technologies using randomized measurements.
Together with a brief introduction on randomized measurements, I will first present the p3-PPT condition that has been experimentally used to detect mixed-state entanglement in a trapped-ion quantum system. I will then show that PT moments can also be used to reveal the entanglement structure of many-body quantum states.?

Short bio:?
Assistant professor in the theory of quantum technologies at LPMMC UGA Grenoble sinc September 2019 and part-time researcher at IQOQI Innsbruck. I am interested i characterizing entanglement in many-body quantum systems, and on measuremen protocols for quantum technologies.

All interested may join this session at SMR or Online (Zoom).
To access online, participants will be asked to register upon entry. After registering, you will receive a confirmation email containing information and the link to join in.
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