



CRC 1227
Designed Quantum States of Matter



Leibniz
Universität
Hannover

GUEST LECTURE

Prof. Dr. Tracy Northup

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University of Innsbruck, Austria**
(Guest of Prof. P. Schmidt and Prof. K. Hammerer)

**Leibniz Universität Hannover
DQ-mat Colloquium**

01.12.2022, 10:00 – 12:00 am

(LUH, Room D326, Building 1101, Main Building, Welfengarten 1)

02.12.2022, 10:00 – 12:00 am

(PTB, Seminarraum des Goeppert-Mayer-Baus, BS)

“Cavity-QED with trapped ions and nanoparticles I + II”

Laser interferometry has recently revolutionized astronomy by introducing a new sense in the observation of the universe. As is widely known, we can now hear the ripples of space-time: gravitational waves. In this colloquium I will give an overview of how ultra-precise laser interferometers can also be used to try to shed light on other mysteries of the universe: dark matter and the question of whether space-time is quantized at the smallest level. Two examples to highlight are the direct searches for scalar field dark matter and dark photon dark matter (ab)using gravitational-wave detectors.

All DQ-mat members and all interested are cordially invited to attend.