



4th year colloquium

Quantum sensing with atoms, light and pendulums

Onur Hosten

ISTA

Host: Johannes Fink

In this talk I will give a high level overview of the research activities that are undertaken in my group, which are enabled by advances in the level of precision in controlling atomic and optical systems. I will share our journey of generating quantum entangled states of laser cooled atomic gases, and of using them to develop atom interferometric force sensors to test fundamental physical laws. I will then share our ambitions for testing whether gravity obeys the laws of quantum mechanics utilizing milligram scale pendulums and cold atoms that all ought to behave quantum mechanically. I will also point at how some of our scientifically motivated technique developments might be turning into industry products.

Monday, May 15, 2023 11:30am - 12:30pm

Raiffeisen Lecture Hall



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: <https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.