

The Vienna Doctoral Programme on Complex Quantum Systems
invites you to a

Seminar Talk

by

Cindy Regal

University of Colorado, Boulder

“Harnessing opto-mechanical correlations in electro-optic conversion and quantum-limited interferometry”

I discuss our work in quantum cavity optomechanics, and some recent experiments harnessing correlations between multiple modes – like those behind ponderomotive squeezing. In experiments to create a quantum converter between microwave and optical fields, we reduce the impact of thermal noise using electro-optic correlations in a 50% efficient converter. In an interferometer limited by the tradeoff between shot noise and backaction, we use correlations to improve broadband displacement detection at the standard quantum limit.

Monday, 14 January, 2019

16:30h get-together with coffee and snacks!

Lise Meitner Hörsaal, Strudlhofgasse 4, 1st floor, Vienna

The seminar talk will be preceded by a CoQuS Student talk at 17:00h
by

Martin Blaha

TU Wien

“Observation of Multimode strong coupling of laser-cooled atoms to fiber-guided photons”

Hosted by: Arno Rauschenbeutel