

# WIENER PHYSIKALISCHES KOLLOQUIUM

## TU-WIEN - UNIVERSITÄT WIEN

### SS 2016

Einladung zum Vortrag von

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München

## Quantum optics with emitters in waveguides

Recent progress in nano-fabrication and atomic physics has allowed to couple atoms (or other emitters) to structured waveguides. In this talk I will report on:(i) a theoretical framework to describe some of those experiments using both a master equation and a path integral approach; (ii) the existence of many-photon bound states in the presence of one emitter; (iii) some techniques to prepare multi-photon states in the waveguide using strong coupling and collective effects.

**9. Mai 2016, 17:30 hrs**

(ab 17 Uhr Kaffee)

TU Wien-Freihaus,  
Wiedner Hauptstrasse 8 – 10  
1040 Wien  
Hörsaal 5,  
2. Stock, grüner Bereich

<http://wpk.univie.ac.at>