



TECHNISCHE
UNIVERSITÄT
WIEN



EINLADUNG

Einladung
zur
Antrittsvorlesung
von
Herrn Univ. Prof. Dr.
Arno Rauschenbeutel

Technische Universität Wien
Atominstitut
Stadionallee 2
1020 Wien, Österreich
<http://ati.tuwien.ac.at/>

Zur Person:

Arno Rauschenbeutel ist seit Juli 2010 Professor für Angewandte Quantenphysik an der TU Wien.

Werdegang:

1997–2001 Doctorate ENS Paris and University of Paris VI

2000–2001 Senior Scientist (Wissenschaftlicher Mitarbeiter)
Institute for Applied Physics, University of Bonn, Germany

2001–2006 Professorial Assistant (Wissenschaftlicher Assistent, C1)
Institute for Applied Physics, University of Bonn, Germany

2005–2006 Professor pro tempore in Experimental Physics (W3)
Institute for Applied Physics, University of Bonn, Germany

2006–2010 Full Professor for Experimental Quantum Optics (W2)
(Lichtenberg-Professorship of the Volkswagen Foundation)
Institute of Physics, University of Mainz, Germany



Begrüßung

Joachim Burgdörfer
Dekan der Fakultät für Physik

Einleitende Worte

Jörg Schmiedmayer

Antrittsvorlesung

Arno Rauschenbeutel

„Glass Fiber Quantum Optics“

Glass fibers play an important role for guiding and controlling light in many areas of everyday life: Owing to their enormous capacity for data transmission, they have become the backbone of the modern information society. Moreover, they have numerous applications in medicine and industry. However, despite the widespread and successful use of glass fiber technology, the design and optimization of novel types of glass fibers for ever more extreme fields of application remains a highly active field of research. In this context, we employ specially designed glass fibers as quantum laboratories. More precisely, we quantum mechanically interface light and matter (atoms, molecules, etc.) near the surface of ultra-thin glass fibers. The strong spatial confinement of the light enhances the light–matter interaction. Such a strong coupling of light and emitters based on glass fibers opens a number of perspectives, including the ultra-high sensitivity detection of molecules and novel types of fiber-optical components, required for quantum communication, quantum cryptography, and for quantum information processing.

Zeit:

Donnerstag, 12. Mai 2016 um 17:00 Uhr s.t.

Ort: Freihaus Hörsaal 6

(2. Stock, grüner Bereich)

Wiedner Hauptstraße 8-10

1040 Wien

Im Anschluss laden wir Sie herzlich zu einem kleinen Buffet ein.