



PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 02.11.2016, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1



Prof. Dr. Anatoli Kheifets

Correlated Many-Particle Dynamics Research School of Physics,
Australian National University Canberra , Australia

"Time Delay in Atomic and Molecular Photoionization"

Time Delay in Atomic and Molecular Photoionization Modern laser techniques allow access to the ultrafast electron dynamics in atoms and molecules on the timescale of 10 to 100 attoseconds ($1\text{as} = 10^{-18}\text{ s}$). This development allowed to re-examine and re-evaluate decade old concepts of the Wigner time delay and the tunneling time delay. The Wigner time delay is unambiguously established in atomic and molecular photoionization and serve as a useful tool to study both one-electron potentials and collective many-electron effects. The tunneling time delay is still the subject of a considerable debate and controversy In this presentation, the story lines of the Wigner and tunneling time delays will be followed and illustrated by the most recent and significant experimental and theoretical results.

Die Dozenten der Physik

local host: Prof. Dr. Reinhard Dörner, doerner@atom.uni-frankfurt.de