chemisch physikalische gesellschaft

Gegründet im Jahre 1869 von H. Hlasiwetz, J. Loschmidt, J. Petzval und J. Stefan

ADLIS

SFB Advanced Light Sources

EINLADUNG

zum Vortrag von

Prof. Dr. Gustav Gerber

Experimentelle Physik I, Physikalisches Institut,
Universität Würzburg

über

Quantum Control of Femtochemistry in the Gase Phase, Liquid Phase and on Surfaces

am

Dienstag, 3. Oktober 2006, um 17.30 Uhr

im Großen Hörsaal des Instituts für Experimentalphysik der Universität Wien
1090 Wien, Strudlhofgasse 4 / Boltzmanngasse 5, 1. Stock

Abstract:

By using coherent control techniques it is possible to trace and control quantum systems on their natural time scale. For femtosecond molecular dynamics this is achieved employing ultrashort coherent light fields shaped in space and time by a laser pulse shaper. Laser-optimized femtochemistry in the gas and liquid phase is one field in which this new technique is successfully employed. Optimal control techniques have recently also been employed to study bond-forming catalytic reactions on a Pd(100) single crystal surface in contrast to previous quantum control experiments aiming at bond-cleavage.