

EINLADUNG

zum Vortrag
von

Prof. Dr. Klaas Bergmann

Fachbereich Physik der TU Kaiserslautern und
OPTIMAS Forschungszentrum des Landes Rheinland-Pfalz

Population Transfer between Quantum State to Perfection: STIRAP and how it came about

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Dienstag, 25. Jänner 2011, um 17:30 Uhr

Ort: Lise-Meitner-Hörsaal, Fakultät für Physik, Universität Wien,
1090 Wien, Strudlhofgasse 4 / Boltzmannngasse 5, 1. Stock

Barrierefreier Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum Hintereingang des Hörsaals

Abstract:

The history of a discovery: This lecture looks back at the circumstances, thoughts, and efforts, which led to the very powerful laser method for efficient population transfer between quantum state, STIRAP = stimulated Raman adiabatic passage, which has found widespread applications. Although the method was first demonstrated in the late eighties, its roots go back to the late seventies if not earlier. It will be shown how long-term planning, systematic experiments and luck cooperated to trigger success. It will also be shown that others could have found the method accidentally had they only followed up on unexpectedly large noise in some of their data. The process, now well understood and part of textbook-type materials, seemed as "mission impossible" thirty years ago.

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