Vortrag im Rahmen des Sfb 450

Two-dimensional Optical Spectroscopy: Probing correlations and couplings inside molecular systems.

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Abstract

Following the success of two-dimensional (2D) spectroscopy in the NMR and in the infrared region, experimental techniques are now available to explore visible region as well. In the talk, two forms of 2D spectroscopy will be discussed: Fourier-transform three pulse photon echo spectroscopy which provides complete spectrally resolved information about the real and imaginary parts of the photon echo signal and two-color three pulse photon echo peakshift spectroscopy which provides time-integrated information about the same signal. It will be demonstrated both theoretically and experimentally that the observed 2D spectra are directly, i.e. without elaborate evaluation procedure, related to the microscopic properties of the studied molecules and significant information about couplings and correlations between different components of the molecular system can be extracted.

Termin und Ort:
Freitag, 13. 8. 2004, 14.00 Uhr, Raum 1'403/04,
Institut für Physik der HUB, Newtonstr. 15, 12489 Berlin.

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