

SFB 608

Einladung zum Kolloquium

- Ort:** Universität zu Köln
II. Physikalisches Institut, Seminarraum 201
- Zeit:** 4. Oktober, 2006, 14:30 Uhr
- Sprecher:** Prof. S. Suga
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- Thema:** Three dimensional bulk sensitive ARPES by soft X-ray and high resolution hard X-ray PES of strongly correlated electron systems

The surface sensitivity of conventional photoelectron spectroscopy (PES) is nowadays well recognized to hinder the probing of genuine bulk electronic structures in many cases of strongly correlated electron systems. Although the total energy resolution is limited by either low photoionization cross sections at high $h\nu$ or limited resolution of photon monochromators, bulk sensitivity is quite essential to the study of strongly correlated electron systems.

I discuss 1) the potential of soft X-ray ARPES below 1keV to probe bulk band dispersions as well as 2) importance of the further bulk sensitivity by mean of hard X-ray PES (HAXPES) in the region of 3 to 8 keV for the study of 3d transition metal as well as 4f rare earth compound systems. The physics of the metal-to-insulator transition as well as the behavior of genuine bulk Kondo resonance are discussed.

Gez. Prof. H. Tjeng