

**O 23 Hauptvortrag Echenique**

Zeit: Samstag 14:00–14:45

Raum: TU EB301

**Hauptvortrag**

O 23.1 Sa 14:00 TU EB301

**Electron dynamics at surfaces** — •PEDRO M. ECHENIQUE — Departamento de Física de Materiales UPV/EHU, and "Unidad Física de Materiales" (CSIC-UPV/EHU), Apartado 1072, 20080 San Sebastián, Spain; Donostia Interacional Physics Center, Po Manuel de Lardizabal 3, 20018 San Sebastián, Spain

An overview of recent theoretical and experimental investigations of electron dynamics in surface and image-potential states at metal surfaces as well as some results for bulk materials are presented. The relevance of a quasiparticle concept in this relation is discussed. Some details of our theoretical treatment of a many-body theory beyond a free-electron description is reported. Thus, the different channels for quasiparticle decay such as the electronic intra- and inter-band transitions and the electron-phonon scattering are addressed.