

DS 32: Invited Limot

Time: Thursday 14:00–14:45

Location: H2

Invited Talk

DS 32.1 Thu 14:00 H2

Spintronics below one nanometer — ●LAURENT LIMOT — Institut de Physique et Chimie des Matériaux de Strasbourg, UMR 7504, Université de Strasbourg, France

Spintronics has seen a considerable effort aimed at improving the quality of devices because there is a growing awareness that structural details may substantially affect the magnetoresistive response. To learn more about these disruptive effects, one possibility consists in focusing

on the interplay between structure-related and spin-related properties in model magnetic systems. As an example we will present recent SP-STM measurements of a single Co-Phthalocyanine molecule interacting with a magnetic surface. We will then show how to go one step further in order to engineer a spintronic device with the scanning tunneling microscope. As will be exemplified for a Kondo atom, this consists in suppressing the vacuum barrier by bringing the tip of the microscope into contact with well-characterized individual atoms and molecules.