

O 44: Overview Talk Christian Ast

Time: Wednesday 9:30–10:15

Location: TRE Phy

Invited Talk

O 44.1 Wed 9:30 TRE Phy

Spins on Surfaces: A Gateway to the Quantum World —

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Many exotic phenomena that are of current interest today rely on the quantum mechanical spin. With the focus on the atomic scale, placing spins on different surfaces has been a remarkably successful platform. Over the past decades, spins as they occur in atoms and molecules

have been placed not only on insulating layers to decouple them from the environment and isolate their properties, but also on interacting normal and superconducting substrates. In this way, a plethora of different effects and concepts could be studied including, but not limited to the Kondo effect, Yu-Shiba-Rusinov states and by extension Majorana bound states, electron spin resonance as well as inelastic spin-flip spectroscopy. Here, I will present an overview of the field as well as recent developments in spins on surfaces at the atomic scale.