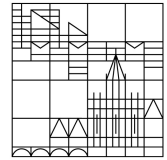


# Physikalisches Kolloquium

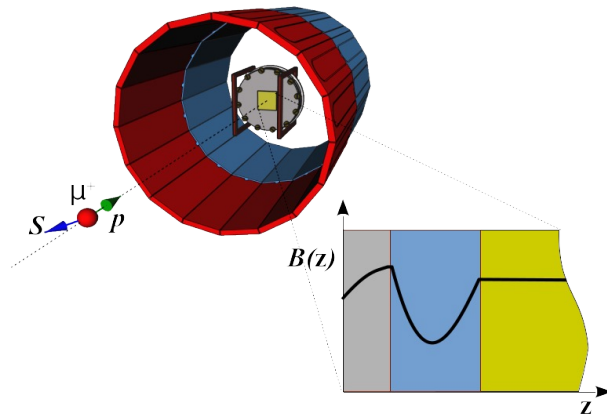
Universität  
Konstanz



Di 26.04.22  
15:15 Uhr  
R 513



**Dr. Zaher Salman**  
PSI Villigen



## Local spin probe perspective on heterostructures and interfaces

The physical properties of an interface between two different materials is usually different from the bulk properties of both. Few experimental methods are capable of examining the local properties of such interfaces or near the surface as a function of depth on the nm scale. The low energy muons spin relaxation/rotation (LE- $\mu$ SR) technique at the Paul Scherrer Institute is perfectly suited for such studies. By implanting fully polarized  $\mu^+$  particles at a tunable energy, one can investigate the local magnetic properties in a depth resolved manner in thin films and hetero-structures. In this talk I will present an overview on the technique and discuss a few novel examples from applications in superconductivity and magnetism with focus on topological materials.