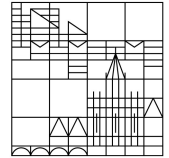


# Physikalisches Kolloquium

Universität  
Konstanz



Di 11.01.22  
15:15 Uhr  
A 701 und

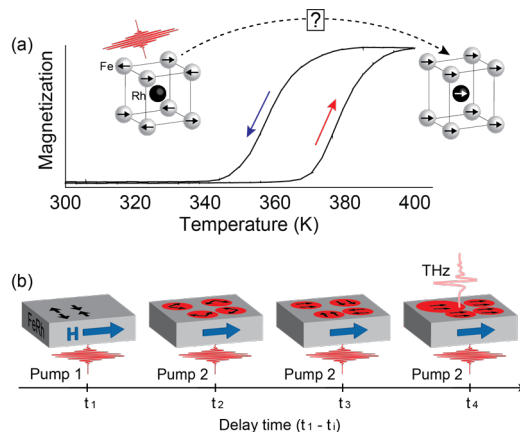
<https://zoom.us/j/93564727567?pwd=UIRmajhHbWJhdFArTHlmOEM2SG5xdz09>



**Prof. Dr. Alexey Kimel**  
Radboud University Nijmegen  
(The Netherlands)

## Ultrafast magnetism

### – terra incognita beyond the classical approximations



While magnetism is essentially the strongest quantum mechanical phenomenon, modern description of magnetization dynamics relies on thermodynamics and the corresponding approximations. I will show that femtosecond laser pulse is a unique stimulus in magnetism that pushes the magnetization dynamics into a counter-intuitive regime, where the classical approximations fail, heat does not destroy, but reverses magnetization and solely a flash of light writes magnetic bits at the record-breaking speeds.