

**AG Kuch**  
**Scientific Activity Report 2020**

**Scientists:**

Gelen, Ismet

Gördes, Jendrik

Golias, Evangelos

Hadjdaj, Sebastien (since 01.04.)

Hosseinifar, Rahil

Kuch, Wolfgang

Kumberg, Ivar

Shinwari, Tauqir

Thakur, Sangeeta

Torres, Jorge

**Bachelor, Master, and Diploma students:**

Ghaderi, Sakineh

Guillet, Quentin (until 30.09.)

Hadjadj, Sebastien (until 13.03.)

Hayes, Jack (since 01.11.)

## **Publications:**

L. M. Arruda, Md. E. Ali, M. Bernien, N. Hatter, F. Nickel, L. Kipgen, Ch. F. Hermanns, T. Bißwanger, P. Loche, B. W. Heinrich, K. J. Franke, P. M. Oppeneer, and W. Kuch  
Surface-orientation- and ligand-dependent quenching of the spin magnetic moment of Co porphyrins adsorbed on Cu substrates  
Phys. Chem. Chem. Phys. **22**, 12688–12696 (2020).

M. Y. Khan, Y. A. Shokr, and W. Kuch  
Coupling of pinned magnetic moments in an antiferromagnet to a ferromagnet and its role for exchange bias  
J. Phys.: Condens. Matter **32**, 075801-1–8 (2020).

I. Kumberg, E. Golias, N. Pontius, R. Hosseinifar, K. Frischmuth, I. Gelen, T. Shinwari, S. Thakur, C. Schüßler-Langeheine, P. M. Oppeneer, and W. Kuch  
Accelerating the laser-induced demagnetization of a ferromagnetic film by antiferromagnetic order in an adjacent layer  
Phys. Rev. B **102**, 214418-1–8 (2020).

S. Ossinger, L. Kipgen, H. Naggert, M. Bernien, A. J. Britton, F. Nickel, L. M. Arruda, I. Kumberg, T. A. Engesser, E. Golias, Ch. Näther, F. Tucek, and W. Kuch  
Effect of ligand methylation on the spin-switching properties of surface-supported spin-crossover molecules  
J. Phys.: Condens. Matter. **32**, 114003-1–10 (2020).

## **Presentations:**

### **Posters**

I. Kumberg

Accelerating the laser-induced demagnetization of a ferromagnetic film by antiferromagnetic order in an adjacent layer

Joint European Magnetic Symposia (JEMS 2020), 07.–11.12.2020 (online).

J. Torres, S. Thakur, I. Kumberg, S. Ossinger, L. Kipgen, R. Hosseinifar, L. M. Arruda, E. Golias, C. Luo, F. Radu, F. Tucek, and W. Kuch

Dependence of blocking and transition temperatures of light- and temperature-driven spin transition of adsorbed spin-crossover molecules on solid surfaces

BESSY@HZB User Meeting 2020, 10.12.2020 (online).

**Degrees:**

Guillet, Quentin

Laser-induced magnetic domain-wall motion in thin ferrimagnetic GdFe layers  
Master degree, Freie Universität Berlin, October 2020.

Hadjadj, Sebastien

Growth and Characterization of van-der-Waals Magnetic Materials  
Master degree, Freie Universität Berlin, March 2020.