

**01.11-30.11.2013**

**Technical University, Berlin, Germany**

During my visit I performed extensive mesoscopic simulations of defects around nano-scale Janus colloid particles immersed into nematic liquid crystal host.

The following discussions with M. Schoen were conducted on:

- various setups for Janus colloid immersed into nematic solvent in the framework of “grafted colloid” model.
- possibility of studying defects-induced colloid rotation by allowing fixed colloid to rotate bulk director in finite-size simulation box.

I also took part in the colloquium given by S.Zumer entitled “Optical inducing of defects in achiral and chiral nematic liquid crystals” on 12.11.2013 in the frames of IGRTG programme.

Transfer of knowledge:

- obtained software for bulk and Janus particles properties analysis, developed corresponding automatic shell scripts for effective usage of that software,
- learn about properties and methods of numerical calculations of topological charges in liquid crystals.