01.03-31.03.2014
Technical University, Berlin, Germany

During my visit the following have been done:
- New mesoscopic simulations of defects around nano-scale Janus colloid particles immersed into nematic liquid crystal host were performed. These simulations were focused on studying of the temperature dependence for the defects structure as compared to the previous studies.
- Performed numerical simulations of spherocylinder Janus colloid and patchy colloid particles for different combinations of surface anchoring types (homeotropic, planar) and patterns.
- The utility to analyse simulation results, such as defect properties (topological charges, position), chirality of the bulk is developed using C++. Corresponding visualizations was performed using VTK, the Visualisation ToolKit as a visualization engine.
- Familiarized myself with results of studies of nano-scale colloid particles in nematic and chiral liquid crystal host, obtained by the theoretical chemistry group in TUB. Several discussions with the members of theoretical chemistry group on interpretation of simulation result took place.

As the result the draft of the manuscript which discusses the results above is in progress.