

**Report on the activities of Wojciecha Rżysko during his visit to the Institute of  
Condensed Matter of Ukrainian Academy of Sciences in Lviv.  
The visits took place between 9 July and 10 August,  
and between 10 September and 10 November of 2013**

1. During my stay I attended a round table discussion "Applications of Monte Carlo simulations to study of phase transitions of Janus particles.
2. Over entire period of the visit I discussed several problems connected with the project with the members of the host Institute. In particular, the discussions have been devoted to the following subjects: the impact of the chemical structure of Janus particles for topology of a phase diagram, structural transitions in two dimensional system.
3. I also attended several discussions on the structural transitions in two-dimensional binary mixtures of patchy colloids and colloids with spherically symmetric interactions.

**The results were present on the following conferences:**

*"Computer simulations of rod-coil copolymers"*

P. Bryk, W. Rżysko

Eighth International Symposium Effects of Surface Heterogeneity

in Adsorption and Catalysis on Solids. ISSHAC-8

27th August-31st August 2012, Cracow, Poland

*"Computer simulations of rod-coil copolymers"*

P. Bryk, W. Rżysko Statistical Mechanics: Interplay of Theory and Computer Simulations

19 - 21 September 2012, Mainz, Germany

**Papers in preparation:**

Dariusz Przech, Wojciech Rżysko, Paweł Bryk

title: „*Adsorption of short block copolymers on solid surfaces. A Monte Carlo study.*”

W. Rżysko, M. Borówko

title: „*A phase behavior of Janus discs in two dimensions.*”