

*Centrum for Multimodal Imaging and The Department of Biophysics,
Institute of Physics, Faculty of Science,
Pavol Jozef Šafárik University*

would like to invite you to a lecture about

KINETIC MONTE CARLO

Given by invited speaker

prof. Aatto Laaksonen

(Stockholm University, Sweden)

“I have one foot in Computational Materials Science being active in the Berzelii Center of Excellence "EXSELENT" for porous materials (mesoporous crafted silica, zeolites, metal organic frameworks) and in Wallenberg financed i-LEAP consortium where we study ionic liquids as additives in lubrications to reduce friction and wear. We also model liquid crystal systems and solid ionic oxides as well as biomaterials (proteins on TiO₂ surface). In Materials science I am affiliated to Arrhenius Laboratory and department of Materials and Environmental Chemistry at Stockholm University.

My other foot is on biological systems where study for example drug delivery through barriers with various vehicles like dendrimers, hydrogels and carbohydrates. We study multiple effect/target anesthetics and studies of the μ opioid and NR2B receptors at several time& length scales. We develop coarse-grained models for DNA and DNA-protein assemblies. We study DNA damage and repair as well as manipulation. We model enzymatic fuel cells and many other systems simply too much to list here. This work is carried out at "Science for Life" Laboratory at Karolinska Institute (SciLifeLab).”

Friday, 23.09.2016 at 10:00

Place: Jesenná 5, Košice, Laboratory of molecular simulations and advanced visualizations

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