

SECOND RUSSIA-USA WORKSHOP “PHASE TRANSITIONS IN FLUIDS AND PLASMAS”

UNIVERSITY OF MARYLAND, COLLEGE PARK, APRIL 21, 2017

Sponsored by the Russian Academy of Sciences and Institute for Physical Science and technology (IPST), University of Maryland, College Park

Co-Chairs: Genri E. Norman (Joint Institute for High Temperatures, Russian Academy of Sciences and Mikhail A. Anisimov (IPST, UMD, College Park) <anisimov@umd.edu>

Secretary: Teri L. Schuler (IPST) <tschuler@umd.edu>

Location: 1116 IPST Conference Room

PROGRAM

9:30 – 10:00 am Introduction by Genri E. Norman (Russia) and Mikhail A. Anisimov (USA)

10:00 - 10:40 am Genri E. Norman and Ilnur M. Saitov (Russia) “Fluid-fluid phase transition in warm dense hydrogen” (keynote lecture)

Coffee break 15 min

10:55 - 11:35 am Christopher Jarzynski (USA) “Irreversibility and the second law of thermodynamics at the nanoscale” (keynote lecture)

11:35 - 12:00 Maksim A. Orekhov (Russia) “Fluctuation enhancement of ion diffusivity in liquids”

12:00 – 12:25 pm Ilnur M. Saitov and R.G.Bystyi (Russia) “Flicker noise at pressure fluctuations in strongly coupled plasmas”

12:25 - 1:25 pm – Lunch

1:25- 2:05 pm Sergey V. Buldyrev (USA) “Linear scaling theory of the second critical point for the Jagla potential” (keynote lecture)

2:05 - 2:30 pm Alexander V. Lankin and Genri E. Norman (Russia) “Recombination regimes in ion plasma”

2:30- 2:55 pm Vasily V. Pisarev (Russia) “Peculiarities of stress correlations during the glass transition”

Coffee break 15 min

3:10 - 3:50 pm John D. Weeks “Solvation, structure, and scaling in models for simple and complex mixtures» (keynote lecture)

Short talks

3:50 – 4:05 pm Viviana Monje-Galvan, Andrei A. Novikov, Anton P. Semenov, Vladimir N. Kuryakov, Jeffery B. Klauda, and Mikhail A. Anisimov (USA/Russia) ”Dual action of hydrotropes on water/oil interface: experiments and MD simulations”

4:05 - 4:20 pm Xiong Zheng, Jan Sengers, and Mikhail Anisimov (China/USA) ”Water-soluble polymers in solutions of a hydrotrope”

4:20 – 4:35 pm Michal Duška, Jan Hrubý, Frédéric Caupin, and Mikhail Anisimov (Czech Republic/France/USA) ”Do supercooled/superstretched heavy and ordinary waters behave differently? ”

4:35 – 4:55 pm Lauren Amrhein, Frédéric Caupin, Michal Duška, Amanda Rozenbaum, Richard Sados, and Mikhail A. Anisimov (USA/ France/Czech Republic/Australia) ”Fluid polyamorphism induced by chemical reaction equilibrium”

4:55 pm – Adjourning