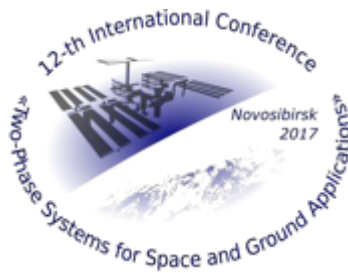




SCIENTIFIC PROGRAM



12-th International Conference
"Two-Phase Systems for Space and Ground Applications"
Kutateladze Institute of Thermophysics of SB RAS
1, Lavrentiev Ave., Novosibirsk

Monday, September 11

16.00 – 18.00 Registration (*House of Scientists: 23, Morskoy Ave., Novosibirsk*)

18.00 – 21.00 Conference welcome reception (*House of Scientists: 23, Morskoy Ave., Novosibirsk*)

Tuesday, September 12

Bus from the hotel "Zolotaya dolina" at 8.25, arrival to Kutateladze Institute of Thermophysics at 8.45

8.30 – 18.00 Registration (Kutateladze Institute of Thermophysics)

9.00 – 9.20 Opening (Sergey V. Alekseenko, Oleg A. Kabov) and Photo

Session- 1: Experiments in space-1

Session Chairs: Zhenhui He and Lounes Tadrist

9.20 – 10.00 KEYNOTE #1

Eduard E. Son	2-phase Interfacial, Droplet, Bubble Turbulence and Combustion in the Normal and Microgravity Conditions
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10.00 – 11.00 Oral presentations

1	O.A. Kabov, V.V. Cheverda, D.V. Zaitsev, Yu.O. Kabova	Heat transfer and CHF in a shear-driven liquid film under local heating: preparation of space experiment on ISS
2	Ke Wu, Peng Liu, Jian-Fu Zhao, Hui-Xiong Li, Kai Li	Single Bubble Pool Boiling Experiment aboard SJ-10: Bubble Behavior and Local Heat Transfer
3	E. Trejo, C. Colin, C. Hammer, J. Kim	Comparison of two similar techniques to study flow boiling in normal and microgravity conditions
4	Satoshi Okayama, Ren Tianhao, Yasuhisa Shinmoto	Addition of Data for Pool Boiling of Immiscible Mixtures

	and Haruhiko Ohta	
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11.00 - 11.30 Coffee break

Session- 2: Two phase flows

Session Chairs: Haruhiko Ohta and Eduard Son

11.30 – 13.00 Oral presentations

1	Hang Guo, Xuan Liu, Jian Fu Zhao, Fang Ye, Chong Fang Ma	Experimental Investigation of Two-phase Flow in Cathodic Flow Field of a Proton Exchange Membrane Fuel Cell in Short-term Microgravity
2	Satoru Miyawaki, Yuma Murata, Ryosuke Ukena, Hitoshi Asano	Study on the effect of Channel Cross-Sectional Shape on Void Fraction Characteristics of One-Component Vertically Upward Two-Phase Flows
3	E.E. Kitanina, E.L. Kitanin, D.A. Bondarenko, P.A. Kravtsov, M.M. Peganova, S.G. Stepanov, V.L. Zherebsov	Experimental study and empirical prediction of fuel flow parameters under air evolution conditions
4	Li Liu, Bofeng Bai and Liang Zhao	A model for gas-liquid swirling separation efficiency and its application
5	S.V. Alekseenko, A.V. Cherdantsev, S.V. Isaenkov, M.V. Cherdantsev, D.M. Markovich	Formation of disturbance waves at the initial area of annular-dispersed flow
6	T. Chevalier, J. Koivisto, N. Shmakova, M.J. Alava, A. Puisto, C. Raufaste and S. Santucci	Foam flows in model fracture

13.00 – 14.15 (Lunch at Dining room and Cafeteria of the Kutateladze Institute of Thermophysics)

Session- 3: Experiments in space-2

Session Chairs: Hitoshi Asano and Irina Graur

14.15 – 14.55 KEYNOTE #2

Paolo Di Marco	Experimental determination of local heat flux during droplet evaporation in microgravity
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Invited presentations from Space Agencies:

14.55 – 15.20 Agency talk-1

Tóth Balázs	SciSpacE & Two-phase Heat Transfer - What is new at ESA?
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15.20 – 15.45 Agency talk-2

Jian Fu Zhao	Recent Chinese Activities and Prospects on Microgravity Fluid Physics
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15.45 – 16.20 Short oral presentations of poster session-1

1	Tóth Balázs	Future ESA experiments in Two-phase Heat and Mass Transfer Research on-board the International Space Station
2	Philippe Antoine, Didier Beghuin, Luc Boussemaere, Renaud Ligot, Yves Garin,	Real-time measurement of the shape of a 2D liquid surface

	Tatiana Gambaryan-Roisman, Iman Nejati, Tony Cosiglio, Wassilis Tzevelecos, Anselmo Cecere, Oleg Kabov	
3	Bin Liu, Yonghai Zhang, Jianfu Zhao, Jinjia Wei, Xin Kong, Zhizhu Cao, Yueping Deng	Experimental Study of Subcooled Flow Boiling Heat Transfer on Micro-pin-finned Surfaces in Short-Term Microgravity
4	Mikhail Ryabov, Oleg Gobysov, Konstantin Inzhevatkin and Artur Bilsky	Experimental investigation of submillimeter size droplet disruption in supersonic flow
5	Serafim Spesivtsev, Yuriy Lyulin, Igor Marchuk and Oleg Kabov	Evolution of the deformation profile of a thin liquid layer when heated from a localized hot spot
6	Li Zhang, You-Rong Li, Li-Na Liu and Chun-Mei Wu	Three-dimensional Numerical Simulation of Thermocapillary Convection of Low Prandtl Number Fluid in a Deep Annular Pool with Surface Heat Dissipation
7	Evgeniy Baranov, Sergey Khmel, Alexandr Zamchiy and Evgeniy Shatskiy	Synthesis of silicon oxide micropores on the copper substrate with SiO ₂ interlayer
8	Ilya Shefer	Dependence of the critical characteristics of the stability of the evaporating liquid flow on the system geometry
9	Boris Pokusaev, Sergey Karlov, Andrey Vyazmin, Dmitry Nekrasov, Nikolay Zakharov, Vyacheslav Reznik, Dmitry Khramtsov, Dmitry Skladnev	Structure of gels layers with cells
10	Yu.O. Kabova, V.V. Kuznetsov, O.A. Kabov	Cooling of a microchannel with a thin evaporating liquid film sheared by dry gas
11	V.V. Zamaschikov, E.A. Chinnov	Features of liquid fuel burning in a narrow channel

16.20 – 17.00 Coffee and poster session-1

Session- 4: Films, thermocapillarity

Session Chairs: Tatyana P. Lyubimova and Osamu Kawanami

17.00 – 18.30 Oral presentations

1	Luis A. Dávalos-Orozco	Thermocapillary stability of a thin film coating a cylinder with a thick wall with finite thermal conductivity in the absence of gravity
2	S.P. Aktershev, E.A. Chinnov	Thermocapillary structures in a heated liquid film
3	Andrey Chernyavskiy, Aleksandr Pavlenko	Numerical simulation of heat transfer at unsteady heat generation in falling wavy liquid films
4	Sergey Semenov, Renaud Denoyel, Jean-François Haquet, Pascal Piluso and Mickaël Antoni	Two-dimensional numerical simulations of the hydrodynamic behaviour of a molten metal-gas-oxide model system
5	V.V. Cheverda, O.A. Kabov	Stable liquid film flow during changeable gravity level
6	Emmanuel Gosselin	Wettability effect on water condensation

19.00 – 21.30 Scientific committee meeting and dinner (by invitation only) (*House of Scientists*)

Wednesday, September 13

Bus from the hotel "Zolotaya dolina" at 8.25, arrival to Kutateladze Institute of Thermophysics at 8.45

8.30 – 18.00 Registration (Kutateladze Institute of Thermophysics)

Session- 5: Boiling, Heat Pipes, mini- and microchannels

Session Chairs: Paolo Di Marco and Hang Guo

9.00 – 9.40 KEYNOTE #3

Zhenhui He	Development of Mechanically Pumped Two-Phase Loop for Space Applications
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9.40 – 11.10 Oral presentations

1	Igor Kozulin, Vladimir Kuznetsov	Experimental study dynamics of explosion boiling of liquids on the microheater
2	Thibaud Solé-Agostinelli, Vincent Ayel, Florent Vigoureux, Cyril Romestant, Yves Bertin and Marco Marengo	Thermo-hydraulic characterization of semi-transparent Flat-Plate Pulsating Heat Pipes in variable gravity regimes
3	Fedor Ronshin, Vyacheslav Cheverda, Evgeny Chinnov, Yuriy Dementyev, Oleg Kabov	Experimental Characterization of Two-Phase Flow Regimes and Flow Boiling in Microchannel
4	Nicolas Chauris, Vincent Ayel, Cyril Romestant, Yves Bertin	Pulsating heat pipe enhancement performance using an electrohydrodynamic pump
5	German Bartkus, Vladimir Kuznetsov	Experimental study of the local characteristics of gas-liquid flow in a rectangular microchannel
6	Fang Ye, Xuan Liu, Jian Fu Zhao, Hang Guo, Chong Fang Ma	Gravitational Effect on Performance of a Polymer Electrolyte Fuel Cell with Vertical Channels

11.10 - 11.30 Coffee break

Session- 6: Condensation, porous media

Session Chairs: Oleg Kabov and Jianfu Zhao

11.30 – 13.15 Oral presentations

1	Leigang Zhang, Juan Shi, Zhenqian Chen	Condensation of steam on elliptic pin–fin plates
2	Yong Li, Jinshi Wang, Kai Xia, Nana Chen, Junjie Yan	Research on droplets growth of Marangoni condensation during the time-series process
3	Igor Marchuk, Yuriy Lyulin, Artem Barskii	Film Wise Vapor Condensation in Channels and on Curved Surfaces
4	Kristina Tolmacheva, Sergei Boronin and Andrei Osiptsov	Multi-fluid modelling of suspension filtration in a porous medium: particle trapping and mobilization, permeability damage and recovery
5	Alexey Ph Polikarpov, Irina A. Graur	Evaporation and condensation of rarefied gas between two parallel condensed phases
6	Filippo Pagnoni, Vincent Ayel and Yves Bertin	Effects of Loop Heat Pipe condenser design on the overall thermal performance
7	Konstantin Goncharov, Vasily Buz	Modeling of film condensation when the significant influence of surface tension forces

13.15 – 14.15 Lunch (Dining room and Cafeteria of the Kutateladze Institute of Thermophysics)

Session- 7: Invited presentations from Space Agencies. Experiments in space

Session Chairs: Luis A. Dávalos-Orozco and Huihe QIU

14.15 – 14.40 Agency talk-3

Haruhiko Ohta, Hitoshi Asano and Osamu Kawanami	Objectives and Present Situation of TPF (Two-Phase Flow) Experiment onboard ISS
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14.40 – 15.05 Agency talk-4

Andrey V. Peklevskiy	Russian ISS Research Program
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15.05 – 15.35 Short oral presentations of poster session-2

1	Rui Ma, Yu-ting Wu, Qiang-yu Wen, Chun-xu Du, Xia Chen, De-lou Zhang, Chong-fang Ma	Effect of Gravitational Acceleration on the Distribution of Oil Phase
2	Ruquan Liang and Song Xiao	Thermocapillary convection of high Prandtl number fluids
3	Tian-Shi Wang, Wan-Yuan Shi, Yi-Wei Jia, Ji-Long Zhu	Marangoni convection instability induced by evaporation in a sessile droplet of silicone oil on heated substrate
4	Zhen-Dong LI, Liang Zhang, Ke Wu, Jian Fu Zhao, Hui-Xiong Li, Kai Li	Numerical Simulation of Gravity Influence on Single Bubble Pool Boiling Heat Transfer
5	Vladimir Shelukhin	Two-phase granular fluids
6	V.N. Yarygin, Yu.I. Gerasimov, A.N. Krylov, V.G. Prikhodko, A.Yu. Skorovarov, I.V. Yarygin	Model and on-orbit study of the International space station contamination processes by jets of its orientation thrusters
7	E.A. Chinnov, E. N. Shatskiy, S. Ya. Khmel, E. A. Baranov, A.O. Zamchiy, V. V. Semionov, and O.A. Kabov	Enhancement of heat transfer at pool boiling on surfaces with silicon oxide nanowires
8	Ekaterina Kirichenko, Alexey Safonov, Veronica Sulyaeva and Nikolay Timoshenko	The influence of substrate temperature on structure and wettability properties of fluoropolymer coatings by Hot Wire CVD
9	Igor Poletaev, Mikhail Timoshevskiy, Konstantin Pervunin and Mikhail Tokarev	Bubble Identification for Gas-liquid Two-phase Flows Using Artificial Neural Networks
10	Varvara Gordeeva and Andrey Lyushnin	Modelling of thin evaporating film of polar liquid with a surfactant adsorbed on the interfaces
11	Vitaly Demin, Alexey Mizev and Maxim Petukhov	Division of binary metal melts in a thin capillary

15.35 – 16.15 Coffee and poster session-2

16.00 – 19.30 City tour

16.30 – 18.30 Evaporation Patterns (CIMEX) Science Team meeting (by invitation of Space Agencies only) (Novosibirsk State University, 1, Pirogova street).

Bus from the hotel "Zolotaya dolina" at 19.00, arrival to Technopark at 19.15

19.30 – 22.30 Banquet (Technopark: 12, Nikolaeva street, Novosibirsk)

Bus from Technopark at 22.30, arrival to the hotel "Zolotaya dolina" 22.45

Thursday, September 14

Bus from the hotel "Zolotaya dolina" at 8.25, arrival to Kutateladze Institute of Thermophysics at 8.45

8.30 – 18.00 Registration (Kutateladze Institute of Thermophysics)

Session- 8: Drops, wetting, contact line - 1

Session Chairs: Bofeng Bai and Olga N. Goncharova

9.00 – 9.40 KEYNOTE #4

Huihe Qiu	Contact Line Dynamics and Evaporation of a Sessile Droplet on Chemically Patterned Surfaces
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9.40 – 10.20 Short oral presentations of poster session-3

1	Shen Lili, Wu Yuting, Wang Wei, Ma Chongfang	Numerical study on two-phase flow in leakage path clearance of single screw expanders
2	S. Dehaeck, A. Y. Rednikov, D. Seveno, J. De Coninck, P. Colinet	Spreading dynamics of evaporating and perfectly wetting liquids
3	Benjamin Franz, Peter Stephan	Numerical Simulation of nucleate boiling in microgravity under the influence of a shear flow
4	Oleg A. Yevdokimov, Shota A. Piralishvili, Sergey V. Veretennikov and Alexandr A. Elkes	Cleaning injectors with dual orifice nozzles for aviation gas turbines using vortex ejector: experimental research.
5	D. S. Klyuev and N. A. Ivanova	Laser-induced thermocapillary instabilities in two-layer systems
6	Ekaterina Rezanova and Yuriy Lyulin	Modeling of the liquid and gas flows with evaporation at interface based on exact solutions
7	<u>L.I. Maltsev</u>, Yu.S. Podzharov and O.A. Kabov	Modeling dry spots in isothermal liquid films on a horizontal substrate at different gravity
8	<u>Ella Barakhovskaia</u> and Igor Marchuk	Calculation of the surface tension and its temperature coefficient based on the data on thermocapillary deformations in locally heated horizontal liquid thermocapillary deformations in locally heated horizontal liquid layer
9	Ikhtier H. Umirzakov	New correlations between critical parameters of liquid-vapor first-order phase transition
10	Oleg Sharypov, Denis Krasinsky	Shape of self-sustained evaporation front
11	Yu.O. Kabova, V.V. Kuznetsov, V.V. Zamazchshikov, E.A. Chinnov, O.A. Kabov	Experimental and theoretical study of the flame propagation mechanism above the surface of the oxidant driven combustible liquid flowing in microchannels
12	<u>Konstantin A. Goncharov</u>	Designing and research loop heat pipe for precise thermal control system
13	Vladimir Salomatov, Vadim Karelin	Study of microwave drying of wet materials based on one-dimensional two-phase model

10.20 – 11.00 Coffee and poster session-3

Session- 9: Drops, wetting, contact line - 2

Session Chairs: Jinjia Wei and Alexey Rednikov

11.00 – 13.00 Oral presentations

1	Chafea Bouchenna,	Fluid flow inside and outside an evaporating sessile drop
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	Mebrouk Aitsaada, Salah Chikh, Lounès Tadrist	
2	Alexey Rednikov, Yannis Tsoumpas, Sam Dehaeck and Pierre Colinet	Analysis of contact angles for a perfectly wetting sessile droplet evaporating into air at the evaporation stage
3	Nastasia Okulova, Valery Okulov and Rafael Taboryski	An interaction of impacting droplets with superhydrophobic coatings
4	Dmitry V. Zaitsev, Dmitry P. Kirichenko, Vladimir S. Ajaev, Oleg A. Kabov	Levitation and self-organization of liquid microdroplets over dry heated substrates
5	Peter Lebedev-Stepanov, Sergey Efimov and Alexander Kobelev	Drying droplet deposited on poor wetting substrate: beyond the lubrication approximation
6	Evgeny Ermanyuk and Nikolay Gavrilov	Impact of a sphere onto a liquid
7	Anton Surtaev, Vladimir Serdyukov, Andrey Chernyavskiy, Denis Kozlov and Dmitry Selishchev	Local heat transfer rate in the contact line area beneath vapor bubble at boiling
8	Konstantin Kolegov	Mathematical modeling of relief glass film formation by evaporative lithography method in combination with IR-heating

13.00 – 14.15 Lunch (Dining room and Cafeteria of the Kutateladze Institute of Thermophysics)

Session- 10: Evaporation, convection, interfaces

Session Chairs: Sergey V. Alekseenko and Peter Lebedev-Stepanov

14.15 – 14.55 KEYNOTE #5

Osamu Kawanami	Evaporation Local Heat Transfer Coefficients of Refrigerant HFC-245fa in a Plate Heat Exchanger
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14.55 – 16.10 Oral presentations

1	Victoria B. Bekezhanova and Olga N. Goncharova	Exact solution of the 3D problem of evaporative convection
2	Elizaveta Gatapova, Ekaterina Korbanova and Oleg Kabov	Measurements of the temperature profile near liquid–gas interface during evaporation of different fluids
3	Li Zhang, You-Rong Li, Ling-Qi Zhou and Chun-Mei Wu	Comparison Study on the Calculation Formula of Evaporation Mass Flux through the Plane Vapour-Liquid Interface
4	Boris Pokusaev and Dmitry Khramtsov	Modelling of liquid evaporation during gel formation
5	Yuriy Lyulin, Aleksei Kreta and Oleg Kabov	Experimental study of interfacial motion of a horizontal liquid layer evaporating into gas flow

16.10 – 16.25 Closing

16.25 – 17.00 Closing reception

17.00 – 19.30 Shear driven liquid film flow project meeting (by invitation of Space Agencies only) (*Novosibirsk State University, 1, Pirogova street*).

17.00 – 18.30 **Excursion through the labs of Kutateladze Institute of Thermophysics (optional)**

Friday, September 15

Bus from the hotel "Zolotaya dolina" at 8.25, arrival to Kutateladze Institute of Thermophysics at 8.45

8.30 – 18.00 Registration (Kutateladze Institute of Thermophysics)

9.30 – 13.00 International Topical Team meeting (by invitation of Space Agencies only) (Novosibirsk State University, 1, Pirogova str., Novosibirsk, Russia)

9.00 – 9.15 Opening (Sergey V. Alekseenko, Oleg A. Kabov) and Photo

Session- 1: Interfacial phenomena in two- phase systems - 1

Session Chairs: Tatyana P. Lyubimova and Alexandr N. Pavlenko

9.15 – 9.55 KEYNOTE #1

Sergey V. Alekseenko	Formation and instability of rivulet flows
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9.55 – 10.40 Short oral presentations of posters

1.	<u>Varvara Gordeeva and Andrey Lyushnin</u>	Modeling of evaporating drop of polar liquid with added surfactant
2.	<u>Evgeniy N. Shatskiy, Aleksey I. Safonov and Evgeny A. Chinnov</u>	Enhancement of heat transfer at pool boiling on small surfaces with fins and hydrophobic coating
3.	<u>Maxim Piskunov and Pavel Strizhak</u>	An explanation of the mechanism of heterogeneous water droplet boiling and explosive breakup using Planar Laser-Induced Fluorescence
4.	<u>Olga Svetlichnaya and Vyacheslav Cheverda</u>	Varieties of the gas driven water rivulet flow regimes in the minichannels
5.	<u>Mikhail Moiseev and Maxim Shugaev</u>	Lattice Boltzmann simulation of bubble growth and departure during pool boiling
6.	<u>Maxim Pryazhnikov, Andrey Minakov, Dmitriy Guzei and Alexander Lobasov</u>	Pool boiling of nanofluids on cylindrical surface
7.	<u>V.P. Fina, F.V. Ronshin, and V.V. Cheverda</u>	Features of two-phase flow regimes in a horizontal rectangular microchannel
8.	<u>Evgeniya Orlova, Dmitry Feoktistov and Anastasya Islamova</u>	Contact line movement over polished and laser processed metal surfaces
9.	<u>Karapet S. Eloyan and Dmitry V Zaitsev</u>	Thin film evaporative cooling system for high heat flux applications
10.	<u>Dmitry Khramtsov and Boris Pokusaev</u>	Heat and mass transfer of multiphase flow in channels with irregular geometry
11.	<u>Tatiana Korbanova and Oleg Kabov</u>	Evaporation of a thin liquid film sheared by gas in a mini/microchannel in the presence of an area of intensive heating moving toward the gas flow
12.	<u>S.A. Novichkova, Y.V. Panin, M.A. Balykin and K.N. Korzhov</u>	Research and development LHP for Chinese spacecrafts.

13.	Egor Tkachenko, Dmitry Zaitsev and Oleg Kabov	The Effect of Dry Spots on Heat Transfer in a Locally Heated Liquid Film Moving Under the Action of Gas Flow in a Channel
14.	Vitaliy V. Semionov, Evgeniy N. Shatskiy and Evgeny A. Chinnov	Rivulets deflection on surface of heated liquid films

10.40 – 11.20 Coffee and poster session-1

Session- 2: Vibrational and natural convection

Session Chairs: Irina Graur and Evgeny A. Chinnov

11.20 – 12.00 KEYNOTE #2

Tatyana P. Lyubimova	Vibrational dynamics of multiphase systems in different gravity conditions
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12.00 – 12.40 KEYNOTE #3

Vladimir S. Berdnikov	Buoyancy and thermocapillary induced convection and its influence on crystal growth
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12.40 – 13.10 Discussion on the Sessions 1 and 2

13.10 – 14.10 Lunch

Session- 3: High-intensity thermal processes

Session Chairs: Oleg A. Kabov and Huihe QIU

14.10 – 14.50 KEYNOTE #4

Alexey K. Rebrov	Gas jet deposition of diamond from high velocity gas flows
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14.50 – 15.30 KEYNOTE #5

Aleksandr N. Shiplyuk	Passive Highspeed Boundary Layer Transition Control Using an Ultrasonically Absorptive Coating
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15.30 – 16.10 KEYNOTE #6

Lounès Tadríst	Heat transfer analysis in natural convection and nucleate boiling regimes
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16.10 – 16.30 Coffee break

Session- 4: High heat flux applications and two-phase flows

Session Chairs: Luis A. Dávalos-Orozco and Paolo Di Marco

16.30 – 17.10 KEYNOTE #7

Oleg A. Kabov	Mini-and micro-systems with ultra-high heat dissipation
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17.10 – 17.50 KEYNOTE #8

Oleg N. Kashinsky	Hydrodynamics and heat transfer in two-phase gas-liquid flows
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17.50 – 18.20 Discussion on the Sessions 3 and 4

18.40 – 20.40 School welcome reception (Kutateladze Institute of Thermophysics)

Saturday, September 16

Bus from the hotel "Zolotaya dolina" at 8.25, arrival to Kutateladze Institute of Thermophysics at 8.45

8.30 – 13.00 Registration (Kutateladze Institute of Thermophysics)

Session- 5: Interfacial phenomena in two- phase systems-2

Session Chairs: Jin-Jia Wei and Sergey A. Novopashin

9.00 – 9.40 KEYNOTE #9

Irina Graur	Vapor-liquid interface: Theory and Applications
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9.40 – 10.20 Short oral presentations of posters

1.	<u>Aleksandra Kravtsova and Yury Meshalkin</u>	Investigation of Influence of High Frequency External Perturbation on Flow in a T-shape Microchannel by μ LIF and μ PIV methods
2.	<u>Tatyana Ponomarenko, Vyacheslav Cheverda and Oleg Kabov</u>	Experimental investigation of heat transfer in the region of contact line of the liquid rivulet
3.	<u>Ekaterina. O. Kirichenko and Elizaveta Ya. Gatapova</u>	The interaction of a impinging water drop with a heated surface
4.	<u>Dmitriy Guzei, Andrey Minakov, Maxim Pryazhnikov and Konstantin Meshkov</u>	Experimental-calculated study of the forced convection magnetic nanofluids
5.	<u>Dmitry Kochkin and Dmitry Zaitsev</u>	Experimental study of the effect of the substrate roughness on the thermocapillary rupture of a horizontal liquid film
6.	<u>Ekaterina G. Korbanova and Elizaveta Ya. Gatapova</u>	Measurements of the evaporation rate upon evaporation of a heated thin layer
7.	<u>Igor Anufriev, Sergey Arsenyev, Mikhail Agafontsev Evgeny Kopyev, Egor Loboda, Evgeniy Shadrin, Oleg Sharypov</u>	Thermography of flame during diesel fuel combustion with steam gasification
8.	<u>A.I. Shatekova and D.V. Zaitsev</u>	Interdroplet distance in a structured monolayer of levitating liquid microdroplets
9.	<u>Dmitriy P. Kirichenko, Dmitriy V. Zaitsev, and Oleg A. Kabov</u>	Experimental investigation of pikoliter liquid drops evaporation on a heated solid surface
10.	<u>Andrey Bazhenov, Michael Hrebtov and Boris Ilyushin</u>	Numerical simulation of turbulent scalar transport in a confined plane jet
11.	<u>Andrey Semenov and Dmitry Zaitsev</u>	The drop evaporation on a heated substrate with single wall nanotubes coating
12.	<u>Aleksandr Borisov, Aleksandr Nazarov, Elena Bochkareva and Nikolay Miskiv</u>	Suspended nanofluid droplet evaporation

10.20 – 11.00 Coffee and poster session-2

Session- 6: Microstructured surfaces and nanofluids

Session Chairs: Lounès Tadrict and Bo-Feng Bai

11.00 – 11.40 KEYNOTE #10

Alexandr N. Pavlenko	Heat Transfer Enhancement at Boiling and Evaporation on Microstructured Surfaces
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11.40 – 12.20 KEYNOTE #11

Jin-Jia Wei	Boiling Heat Transfer Enhancement by Using Micro-pin-finned Surfaces and Its Application in a Novel Loop Heat Pipe.
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12.20 – 13.00 KEYNOTE #12

Sergey A. Novopashin	Interfacial phenomena in nanofluids
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13.00 – 14.00 Lunch

Session- 7: Waves and bubbles

Session Chairs: Igor V. Marchuk and Irina Graur

14.00 – 14.40 KEYNOTE #13

Valeriy K. Kedrinskii	Dynamics of magma in explosive volcanic eruptions
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14.40 – 15.20 KEYNOTE #14

Bo-Feng Bai	Huge Wave and Droplet Entrainment in Churn Flow
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15.20 – 15.50 Discussion on the Sessions 5, 6 and 7

15.50 – 16.00 Closing

16.00 – 17.30 Excursion through the labs of Kutateladze Institute of Thermophysics (optional)