

9:15–9:30

**Welcome Address:** Vladimir Chirkov (*St. Petersburg State University, Russia*)  
Jerzy Mizeraczyk (*Gdynia Maritime University, Poland*)

**J.S. Chang Lecture Award**

**Wednesday (June 19) 9:30-10:20**

Chair: Jerzy Mizeraczyk (*Gdynia Maritime University, Poland*)

Room: 24

9:30–10:20

**J.S.  
Chang  
Award**

*From ESP to NTP via PIV Investigations and Industrial Applications (ID: 0101)*  
**Keping Yan** (*Zhejiang University, China*)

**Oral Session A—ESP**

**Wednesday (June 19) 10:20-13:00**

Chair: Eric Moreau (*University of Poitiers, France*)

Room: 24

10:20–10:50

**Invited  
I**

*EHD Gas Pumping—A Review of Recent Development (ID: 1102)*  
**Feng C. Lai** (*University of Oklahoma, USA*)

10:50–11:20

**Coffee Break** (*Room 45—Lectorium Hall*)

**Oral Session A—ESP (Continue)**

**Wednesday (June 19) 10:20-13:00**

Chair: Eric Moreau (*University of Poitiers, France*)

Room: 24

11:20–11:40

**A1**

*A Proposal of a SDBD-driven Two-stage Electrostatic Precipitator (ID: 1177)*  
**J. Mizeraczyk**<sup>1</sup>, M. Tański<sup>2</sup>, A. Berendt<sup>2</sup> (<sup>1</sup>*Gdynia Maritime University, Poland*; <sup>2</sup>*Polish Academy of Sciences, Poland*)

11:40–12:00

**A2**

*Simulation and measurement of charged particle trajectory with ionic flow in a wire-to-plate type electrostatic precipitator (ID: 1159)*  
Kohei Ito<sup>1</sup>, **Akinori Zukeran**<sup>1</sup>, Yuma Mori<sup>1</sup>, Yoshihiro Kawada<sup>2</sup>, Tomohiro Taoka<sup>3</sup> and Kenji Shibata<sup>3</sup> (<sup>1</sup>*Kanagawa Institute of Technology, Japan*; <sup>2</sup>*Polytechnic University of Japan, Japan*; <sup>3</sup>*Sumiju Plant Engineering Co.Ltd., Japan*)

12:00–12:20

**A3**

*Experimental research on removal of fine fly ash particles and Hg(p) in an electrostatic precipitator (ID: 1160)*  
**Arkadiusz Świerczok**, Maria Jędrusik, Dariusz Łuszkiewicz (*Wrocław University of Science and Technology, Poland*)

12:20–12:40

**A4**

*Computation of the collection efficiency of an electrostatic precipitator with complex electrode geometry based on a macroscale model of dust particles motion and charging (ID: 1161)*  
**K. A. Smagin**<sup>1</sup>, L. V. Chekalov<sup>2</sup>, Yu. I. Sanaev<sup>2</sup>, V. A. Guzaev<sup>2</sup> and N. V. Pikulik<sup>2</sup> (<sup>1</sup>*Moscow Power Engineering Institute, Russia*; <sup>2</sup>*JSC "Condor-Eco", Russia*)

12:40–13:00

**A5**

*Stability analysis of electrohydrodynamic flow subject to a crossflow: implication for electrostatic precipitator (ID: 0117)*  
Fang Li<sup>1</sup>, Bofu Wang<sup>2</sup>, Zhenhua Wan<sup>1</sup>, Jian Wu<sup>3</sup>, **Mengqi Zhang**<sup>4</sup> (<sup>1</sup>*University of Science and Technology of China, China*; <sup>2</sup>*Shanghai University, China*; <sup>3</sup>*Harbin Institute of Technology, China*; <sup>4</sup>*National University of Singapore, Singapore*)

13:00–14:00

**Lunch** (*Birzhevaya liniya, 6*)

- 14:00–14:30 **Invited II** *Partial discharges in liquids (ID: 1104)*  
**S. M. Korobeynikov**<sup>1,2</sup>, A. G. Ovsyannikov<sup>2</sup>, A. V. Ridel<sup>1,2</sup>, D. I. Karpov<sup>1</sup>, D. A. Medvedev<sup>1</sup>, M. N. Lyutikova<sup>2,3</sup>, Yu. A. Kuznetsova<sup>4</sup> and V. B. Yassinskiy<sup>4</sup> (<sup>1</sup>Lavrentyev Institute of Hydrodynamics of SB RAS, Russia; <sup>2</sup>Novosibirsk State Technical University, Russia; <sup>3</sup>Federal Grid Company of Unified Energy System PJSC, Russia; <sup>4</sup>Karaganda State Technical University, Kazakhstan)
- 14:30–14:50 **B1** *Conical structures on the surface of a dielectric liquid with surface ionic conductivity (ID: 1120)*  
M. A. Belyaev<sup>1</sup>, **N. M. Zubarev**<sup>1,2</sup>, O. V. Zubareva<sup>1</sup> (<sup>1</sup>Institute of Electrophysics, UB RAS, Russia, <sup>2</sup>Lebedev Physical Institute, RAS, Russia)
- 14:50–15:10 **B2** *A numerical study on electrohydrodynamic droplet interactions: coalescence and break-up (ID: 1116)*  
Pablo S. Casas<sup>1</sup>, **Maria Garzon**<sup>1</sup>, and James A. Sethian<sup>2</sup> (<sup>1</sup>University of Oviedo, Spain; <sup>2</sup>Lawrence Berkeley National Lab., USA)
- 15:10–15:30 **B3** *EHD-induced Cone-Jet in Gas and Liquid for Fine Droplet Generation (ID: 1175)*  
**Hyun-Ha Kim**<sup>1</sup>, Yoshiyuki Teramoto<sup>1</sup>, Nozomi Takeuchi<sup>1,2</sup>, and Atsushi Ogata<sup>1</sup> (<sup>1</sup>National Institute of Advanced Industrial Science and Technology, Japan; <sup>2</sup>Tokyo Institute of Technology, Japan)
- 15:30–15:50 **B4** *Electrohydrodynamics of droplets: coalescence and breakup (ID: 1157)*  
**Rochish M. Thakkar**, Vikky Anand (Indian Institute of Technology, India)
- 15:50–16:20 **Coffee Break** (Room 45—Lectorium Hall)

- P1-01** *Flow Characteristics of an EHD Gas Pump in Circular Pipe with Secondary Emitting Electrodes (ID: 1114)*  
J. C. Peng<sup>1</sup>, S. C. Lin<sup>1</sup>, and **F. C. Lai**<sup>2</sup> (<sup>1</sup>National Taiwan University of Science and Technology, Taiwan; <sup>2</sup>University of Oklahoma, USA)
- P1-02** *High voltage power system for aircraft based on ionic wind (ID: 0133)*  
**A.V. Kashin**, V.Yu. Khomich, I.E. Rebrov (Institute for Electrophysics and Electric Power, RAS, Russia)
- P1-03** *Effect of Trichel Pulses on EHD Flow Generated by Negative Corona Discharge (ID: 0134)*  
**Kazimierz Adamiak** (University of Western Ontario, Canada)
- P1-04** *In situ momentum enhancement for heat trapped regions using plasma actuators (ID: 1151)*  
**N. Rezazadeh**<sup>1,2</sup>, S. V. Zarifpayam<sup>2</sup>, B.X.Wu<sup>1</sup> (<sup>1</sup>Jiangsu University, China; <sup>2</sup>Hakim Sabzevari University, Iran)
- P1-05** *Development of an EHD induced wind driven personal exposure monitor and in-situ analysis for characterization of exposure (ID: 1163)*  
Ravi Sankar Vaddi, Gaurav Mahamuni, **Igor V Novosselov** (University of Washington, USA)
- P1-06** *Simulation and experiments of natural gas conversion by DBD (ID: 0152)*  
V. Yu Khomich, V. E. Malanichev and **M. V. Malashin** (Institute for Electrophysics and Electric Power, RAS, Russia)
- P1-07** *Investigation of physical processes in pulse-erosion injector (ID: 1140)*  
A.A. Safronov, V. E. Kuznetsov, V. N. Shiryaev, V. B. Kovshechnikov, O. B. Vasilieva, **Yu. D. Dudnik** (Institute for Electrophysics and Electric Power, RAS, Russia)
- P1-08** *Electrohydrodynamic propulsion UAV (ID: 0130)*  
**I. E. Rebrov** (Institute for Electrophysics and Electric Power, RAS, Russia)

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- P1-09** *Numerical analysis of electro-thermo-hydrodynamic stability in a dielectric liquid layer subjected to bottom heating and adverse unipolar injection (ID: 0144)*  
**Jian Wu**<sup>1</sup>, Xuerao He<sup>1</sup>, Mengji Zhang<sup>2</sup> and Philippe Traoré<sup>3</sup> (<sup>1</sup>Harbin Institute of Technology, China; <sup>2</sup>National University of Singapore, Singapore; <sup>3</sup>University of Poitiers, France)
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- P1-10** *Effect of Electric Nusselt number on Electro-Thermo-Convection in dielectric liquid subjected to unipolar injection (ID: 1112)*  
**D. Koulova**<sup>1</sup>, H. Romat<sup>2</sup>, Ph. Traore<sup>2</sup> (<sup>1</sup>Institute of Mechanics, Bulgarian Academy of Sciences, Bulgaria; <sup>2</sup>University of Poitiers, France)
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- P1-11** *The Enhancement of Heat Exchange in a Horizontal Tube by High-voltage Electric Field (ID: 0141)*  
**Hui Fu**, Zhen Liu, Keping Yan (Zhejiang University, China)
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- P1-12** *Specifics of the electric charge formation in liquid dielectrics due to the field-enhanced dissociation (ID: 0181)*  
**S. A. Vasilkov**, Yu.K. Stishkov (St. Petersburg State University, Russia)
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- P1-13** *Electrification of nonisothermal flow of a weakly conducting fluid in an electric field (ID: 0123)*  
**V.A. Polyanskiy**, I.L. Pankratieva (Lomonosov Moscow State University, Russia)

Thursday, June 20, 2019

**Oral Session C—Ionic Wind**

Thursday (June 20) 9:00-10:50

Chair: Seiji Kanazawa (Oita University, Japan)

Room: 24

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- 9:00–9:30 **Invited III** *EHD phenomena in non-equilibrium atmospheric air plasmas: Modeling and applications in aeronautics (ID: 0108)*  
**Konstantinos Kourtzanidis** (ONERA, France)
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- 9:30–9:50 **C1** *Effect of the high voltage electrode shape on the optical and mechanical properties of a pulsed sliding discharge (ID: 1128)*  
**E. Moreau**, K. Bayoda, N. Benard (University of Poitiers, France)
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- 9:50–10:10 **C2** *Electrodynamic airflow produced by a point-to-plate DBD plasma reactor in presence of a water mist (ID: 1129)*  
**E. Defoort**, E. Moreau, C. Batiot-Dupeyrat, R. Bellanger (University of Poitiers, France)
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- 10:10–10:30 **C3** *Experimental and Numerical Investigation of Corona Discharge Induced Flow on a Flat Plate (ID: 1136)*  
Ravi Sankar Vaddi, Yifei Guan, Zhi Yan Chen, Alexander Mamishev, **Igor V Novosselov** (University of Washington, USA)
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- 10:30–10:50 **C4** *Computer Simulation of Plate Cooling by Ionic Wind From a System of Needles (ID: 1135)*  
I.A. Elagin, **P.A. Kostin**, A.V. Samusenko (St. Petersburg State University, Russia)
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- 10:50–11:20 **Coffee Break** (Room 45—Lectorium Hall)
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**Poster Session P2—Microfluidics and Multi-phase Media, Electrostatics, and EHD Flows & Program Committee Meeting**

Chair: Hyun-Ha Kim (National Institute of Advanced Industrial Science and Technology, Japan)

Thursday (June 20) 11:20-13:00

Room: 45 (Lectorium Hall)

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- P2-01** *Equilibrium Configurations of an Uncharged Liquid Jet in a Transverse Electric Field; Conditions for Existence (ID: 1121)*  
**O. V. Zubareva**<sup>1</sup>, N. B. Volkov<sup>1</sup>, N. M. Zubarev<sup>1,2</sup> (<sup>1</sup>Institute of Electrophysics, UB RAS, Russia; <sup>2</sup>Lebedev Physical Institute, RAS, Russia)
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- P2-02** *Computer Simulation of the Droplet Electrodeformation Considering Processes of Current Passage in a Low-conductive Dispersion Medium: Semi-hydrostatic Approach (ID: 1178)*  
V.A. Chirkov, **I.A. Dobrovolsky** (St. Petersburg State University, Russia)
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- P2-03** *Numerical modeling of electrocoalescence using the arbitrary Lagrangian-Eulerian method (ID: 1183)*  
V.A. Chirkov, **G.O. Utiugov** (St. Petersburg State University, Russia)
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- P2-04** *About features of electrokinetic instability in the electrolyte near imperfect ion-selective surfaces (ID: 1155)*  
**G.S. Ganchenko**<sup>1</sup>, N.Yu. Ganchenko<sup>2</sup>, and E.A. Demekhin<sup>1,3</sup> (<sup>1</sup>Financial University, Russia; <sup>2</sup>Kuban State University, Russia; <sup>3</sup>Lomonosov Moscow State University, Russia)
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- P2-05** *On dependence of equilibrium characteristics of the space tethered system on environmental parameters (ID: 1184)*  
**A. A. Tikhonov**, A. B. Yakovlev (St. Petersburg State University, Russia)
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- P2-06** *Intensification of electro-magneto-hydrodynamic plasma effects using radionuclides (ID: 1132)*  
**Iu. Bosneaga**<sup>1</sup>, M. Bologa<sup>1</sup>, E. Agarwal<sup>2</sup> (<sup>1</sup>Institute of Applied Physics, Moldova; <sup>2</sup>University Dimitrie Cantemir, Moldova)
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- P2-07** *Simulation and analysis of prebreakdown processes in liquids (ID: 1173)*  
 Korobeynikov S.M.<sup>1</sup>, **Kuznetsova Yu.A.**<sup>2</sup> and Yassinskiy V.B.<sup>2</sup> (<sup>1</sup>Novosibirsk State Technical University, Russia; <sup>2</sup>Karaganda State Technical University, Kazakhstan)
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- P2-08** *Influence of Water on Liquid Insulation Electrical Strength of Large Power Transformers (ID: 1171)*  
**M. N. Lyutikova**<sup>1</sup>, S. M. Korobeynikov<sup>2</sup> (<sup>1</sup>Federal Grid Company of Unified Energy System PJSC, Russia; <sup>2</sup>Novosibirsk State Technical University, Russia)
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- P2-09** *Additional Properties of Electrohydrodynamic Pump Operation (ID: 1118)*  
**M.K. Bologa**, F. P. Grosu, I. V. Kozhevnikov (Institute of Applied Physics, Moldova)
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- P2-10** *Derivation of Hydrodynamic Equations by Dimensional Method (ID: 1119)*  
 F. P. Grosu, **M. K. Bologa**, O. V. Motorin (Institute of Applied Physics, Moldova)
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- P2-11** *Effect of Couette Flow on Electroconvective Vortices (ID: 1126)*  
 Yifei Guan and **Igor Novosselov** (University of Washington, USA)
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- P2-12** *Experimental Characterization of High-voltage Electric Current Passage in Weakly Conducting Liquids using Dynamic Current-Voltage Characteristics (ID: 0185)*  
**A.A. Sitnikov**, V.A. Chirkov (St. Petersburg State University, St. Petersburg, Russia)
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- P2-13** *The effect of a dielectric-barrier discharge on a gas flow turbulization in a helium atmospheric pressure plasma jet (ID: 0182)*  
**Ratmir Aznabaev**<sup>1</sup>, Andrey Sitnikov<sup>1</sup>, Mikhail Pinchuk<sup>2</sup>, Alexander Astafiev<sup>2</sup> and Olga Stepanova<sup>1,2</sup> (<sup>1</sup>St. Petersburg State University, Russia; <sup>2</sup>Institute for Electrophysics and Electric Power, RAS, Russia)
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- P2-14** *Electrical strength of air gaps under constant and alternating voltage (ID: 0187)*  
**D. Kuzmin**<sup>1</sup>, I. Safronova<sup>1</sup>, A. Samusenko<sup>1</sup>, V. Kuznetsov<sup>2</sup> (<sup>1</sup>St. Petersburg State University, Russia; <sup>2</sup>Institute for Electrophysics and Electric Power, RAS, Russia)

13:00–14:00

**Lunch** (Birzhevaya liniya, 6)

## Oral Session D—DBD and Plasma

Chair: Kuniko Urashima (National Institute of Science and Technology Policy, MEXT, Japan)

**Thursday (June 20) 14:00-15:50**  
 Room: 24

- 14:00–14:30 **Invited IV** *Two Kinds of Liquid Flows Induced by Plasma-jet Irradiation (ID: 1105)*  
**T. Kawasaki**<sup>1</sup>, K. Nishida<sup>2</sup>, M. Kawaguchi<sup>3</sup>, Y. Hazama<sup>3</sup>, and F. Mitsugi<sup>2</sup> (<sup>1</sup>Nishinippon Institute of Technology, Japan; <sup>2</sup>Kumamoto University, Japan; <sup>3</sup>Nippon Bunri University, Japan)
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- 14:30–14:50 **D1** *Enhanced performance of persulfate oxidant on pollutant degradation by DBD plasma (ID: 0186)*  
**Kefeng Shang**<sup>1,2</sup>, Xiaojing Wang<sup>2</sup>, Qi Zhang<sup>2</sup>, Jie Li<sup>1,2</sup>, Yan Wu<sup>1,2</sup> (<sup>1</sup>Dalian University of Technology, China; <sup>2</sup>Ministry of Education of China, China)
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- 14:50–15:10 **D2** *Principles of dielectric barrier discharge formation in atmospheric pressure gases for non-thermal plasma applications (ID: 0150)*  
**M.V. Malashin** (Institute for Electrophysics and Electric Power, RAS, Russia)
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- 15:10–15:30 **D3** *Influence of the Operating Pressure on Pulsed Positive Streamer Corona Structure and Distribution of N<sub>2</sub>(A<sup>3</sup>Σ<sub>u</sub>) Metastable Molecules in the Needle-to-Plate Gap (ID: 1168)*  
**S. Kanazawa**<sup>1</sup>, A. Ohno<sup>1</sup>, T. Furuki<sup>1</sup>, K. Tachibana<sup>1</sup>, R. Ichiki<sup>1</sup>, A. Suzuki<sup>2</sup>, K. Kuroi<sup>2</sup>, K. Suzumura<sup>2</sup>, T. Tanaka<sup>2</sup>, K. Motegi<sup>2</sup>, M. Kocik<sup>3</sup> and J. Mizeraczyk<sup>4</sup> (<sup>1</sup>Oita University, Japan; <sup>2</sup>Daikin Industries, Ltd., Japan; <sup>3</sup>Institute of Fluid Flow Machinery, Polish Academy of Sciences, Poland; <sup>4</sup>Gdynia Maritime University, Poland)

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15:30–15:50    **D4**    *Influence of solution circulation on water treatment using corona discharge (ID: 1164)*  
**T. Miichi** (Osaka Institute of Technology, Japan)

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15:50–16:20    **Coffee Break** (Room 45—Lectorium Hall)

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**Oral Session E—DBD and Plasma**

**Thursday (June 20) 16:20-17:20**

Chair: Toshiyuki Kawasaki (Nishinippon Institute of Technology, Japan)

Room: 24

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- 16:20–16:40    **E1**    *Numerical simulation of initial stage of capillary discharge (ID: 1149)*  
**M. Timshina**<sup>1</sup>, S. Eliseev<sup>2</sup>, N. Kalinin<sup>1</sup>, D. Belsky<sup>3</sup>, A. Samokhvalov<sup>4</sup>, K. Sergushichev<sup>5</sup>, A. Smirnov<sup>5</sup>, V. Burtsev<sup>1</sup> (<sup>1</sup>Ioffe Physical Technical Institute, RAS, Russia; <sup>2</sup>St. Petersburg State University, Russia; <sup>3</sup>«Burtsev laboratory» limited company, Russia; <sup>4</sup>ITMO University, Russia; <sup>5</sup>St. Petersburg Electrotechnical University “LETI”, Russia)
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- 16:40–17:00    **E2**    *Comparison of Analytical and Numerical Models for Point to Ring Electro-Hydrodynamic Flow (ID: 1138)*  
Yifei Guan, Ravi Sankar Vaddi, Alberto Aliseda, and **Igor Novosselov** (University of Washington, USA)
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- 17:00–17:20    **E3**    *Study on Discharge Mechanism and Electromagnetic Radiation Characteristics of Negative Corona Discharge in Airflow (ID: 1111)*  
**Chuang Wang**, Xi Chen, Wei Wang, Pengfei Li and Kai Tang (Beijing Institute of Technology, China)

Friday, June 21, 2019

**Oral Session F—EHD Flows  
and Flow Electrification**

Friday (June 21) 9:00-10:50

Chair: James Cotton (McMaster University, Canada)

Room: 24

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- 9:00–9:30     **Invited V**     *Electroconvection in dielectric liquids (ID: 0103)*  
**Pedro A. Vázquez** (University of Seville, Spain)
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- 9:30–9:50     **F1**     *Experimental study on electrohydrodynamic flows of a dielectric liquid in a needle-plate configuration under direct/alternating current electric field (ID: 1115)*  
Zhihao Sun<sup>1</sup>, Dexin Sun<sup>1</sup>, Jinxin Hu<sup>1</sup>, Hong-Liang Yi<sup>1,2</sup>, **Jian Wu**<sup>1,2</sup> (<sup>1</sup>Harbin Institute of Technology, China; <sup>2</sup>Ministry of Industry and Information Technology, China)
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- 9:50–10:10     **F2**     *Electrokinetic liquid pumping along a charge-selective microsphere (ID: 0125)*  
**V.S. Shelistov**<sup>1</sup>, E.A. Frants<sup>1</sup>, G.S. Ganchenko<sup>1</sup> and E.A. Demekhin<sup>1,2</sup> (<sup>1</sup>Financial University, Krasnodar, Russia; <sup>2</sup>Lomonosov Moscow State University, Russia)
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- 10:10–10:30     **F3**     *Effect of DNA molecules on streaming current (ID: 1109)*  
**A. Mizuno**<sup>1</sup>, G. Touchard<sup>2</sup>, T. Paillat<sup>2</sup>, E. Moreau<sup>2</sup> (<sup>1</sup>Toyohashi University of Technology, Japan; <sup>2</sup>University of Poitiers, France)
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- 10:30–10:50     **F4**     *Advances in non-thermal microbiological sterilization using high intensity pulsed electric fields (ID: 0169)*  
**Iu. Bosneaga**<sup>1</sup>, M. Bologa<sup>1</sup>, E. Agarwal<sup>2</sup> (<sup>1</sup>Institute of Applied Physics, Moldova; <sup>2</sup>University Dimitrie Cantemir, Moldova)
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- 10:50–11:20     **Coffee Break (Room 45—Lectorium Hall)**
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**Oral Session G—Multi-phase Media  
and Electrostatics**

Friday (June 21) 11:20-13:00

Chair: Sergey Korobeynikov (Novosibirsk State Technical University, Russia)

Room: 24

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- 11:20–11:40     **G1**     *Numerical simulation of partial discharges in deformed bubbles in transformer oil (ID: 1170)*  
**D. I. Karpov**<sup>1</sup>, S. M. Korobeynikov<sup>1,2</sup>, A. G. Ovsyannikov<sup>2</sup>, A. V. Ridel<sup>1,2</sup>, M. B. Meredova<sup>1</sup> (<sup>1</sup>Lavrentyev Institute of Hydrodynamics of SB RAS, Russia; <sup>2</sup>Novosibirsk State Technical University, Russia)
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- 11:40–12:00     **G2**     *Behavior of a bubble in dielectric liquid in uniform and non-uniform electric field (ID: 1154)*  
A. A. Nemykina<sup>1,2</sup>, D. A. Medvedev<sup>1,2</sup>, (**D.I. Karpov**)<sup>1</sup> (<sup>1</sup>Lavrentyev Institute of Hydrodynamics SB RAS, Russia; <sup>2</sup>Novosibirsk State University, Russia)
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- 12:00–12:20     **G3**     *Shape of a liquid meniscus under the action of an electric field in a grooved capillary structure (ID: 1156)*  
**N. Cardin**<sup>1,2</sup>, S. Siedel<sup>1</sup>, J. Bonjour<sup>2</sup>, S. Lips<sup>2</sup>, L. Davoust<sup>1</sup> (<sup>1</sup>University Grenoble Alpes, France; <sup>2</sup>University of Lyon, France)
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- 12:20–12:40     **G4**     *Dynamics of Electro-Hydrodynamic-Coalescence of a Sessile Drop at a Liquid-Liquid Interface (ID: 1153)*  
Kuntal Patel, Kuldip Lakhani, Nihar Thakkar, **Absar M. Lakdawala** (Nirma University, India)
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- 12:40–13:00     **G5**     *Numerical simulation of flow-focused AC electrified jets (ID: 1176)*  
**Pedro A. Vázquez**, Pablo García Sánchez, Elena Castro-Hernández and Antonio Ramos (University of Seville, Spain)
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- 13:00–14:00     **Lunch (Birzhevaya liniya, 6)**
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## Oral Session H—EHD Flows and EHD in Thermal Systems

Friday (June 21) 14:00-15:50

Chair: Jian Wu (Harbin Institute of Technology, China)

Room: 24

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- 14:00–14:30 **Invited VI** *The effect of electrohydrodynamics high voltage DC and AC waveforms on the heat transfer process during the melting of Octadecane (ID: 0107)*  
David Nakhla, **James S. Cotton** (McMaster University, Canada)
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- 14:30–14:50 **H1** *Effects of Orientation on Critical Heat Flux Enhanced by Electric Field during Flow Boiling (ID: 1142)*  
**I. Kano** and T. Nishina (Yamagata University, Japan)
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- 14:50–15:10 **H2** *Role of a Non-Uniform AC Electric Field on a Buoyancy-Driven Flow in a Differentially Heated Cavity (ID: 1139)*  
**A. Jawichian**, L. Davoust, S. Siedel (University Grenoble Alpes, France)
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- 15:10–15:30 **H3** *Action of electrohydrodynamic flow on heat transfer at boiling (ID: 1145)*  
I. M. Chernica, **M. K. Bologa**, O. I. Mardarskii, I. V. Kozhevnikov (Institute of Applied Physics, Moldova)
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- 15:30–15:50 **H4** *Study of an Electrohydrodynamic Pump Operating due to the Field-enhanced Dissociation near a Dielectric Barrier (ID: 1180)*  
Yu. K. Stishkov, S. A. Vasilkov, **K. D. Poluektova** (St. Petersburg State University, Russia)
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- 15:50–16:20 **Coffee Break (Room 45—Lectorium Hall)**
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## Oral Session I—DBD and Plasma

Friday (June 21) 16:20-17:00

Chair: Akira Mizuno (Toyohashi University of Technology, Japan)

Room: 24

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- 16:20–16:40 **I1** *Direct observation of the radial temperature gradients of the neutral gas in the constricted argon glow discharge (ID: 1179)*  
Yuri Golubovskii, **Aleksei Siasko**, Tatyana Gurkova, Nikolay Kryukov (St. Petersburg State University, Russia)
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- 16:40–17:00 **I2** *Evolution of three-electrode pulsed surface dielectric barrier discharge: primary streamer, transitional streamer and secondary streamer (ID: 1147)*  
**Bangfa Peng**, Jie Li, Nan Jiang and Yan Wu (Dalian University of Technology, China)
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- 17:00–17:15 **Closing Ceremony & Student Award:**  
Vladimir Chirkov (St. Petersburg State University, Russia)  
Jerzy Mizeraczyk (Gdynia Maritime University, Poland)
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