#### SPEAKERS<sup>24Sep2019</sup>

ANDREEVA Natalia, PhD, senior researcher

Department of Micro- & Nanoelectronics, St. Petersburg Electrotechnical University "LETI". St. Petersburg. Russia

ČUPIĆ Željko, PhD, acad SANS, research professor Center of Catalysis and Chemical Engineering, Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Belgrade, Serbia

GANAPATHY Nagarajan, biomed engg., pre-postdoc fellow Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai, India

**GERASIMOV** Andrey, PhD, prof.,chair

Medical Informatics & Statistics, Sechenov University, Moscow, Russia

HAHN, Helmut, foreign memb. RAS, prof. dr. med. dr. h.c.mult. Emeritus Prof, Medical Microbiology, Charité University Medicine Berlin; Chairman, Koch Metchnikov Forum (reg. assoc.), Berlin, Germany

HEDRIH Andjelka, MD, PhD, research assistant professor Department of Mechanics, Mathematical Institute of Serbian Academy of Sciences and Arts, Belgrade, Serbia

JIANG Xiao-Yi, PhD, professor, chair

Pattern Recognition and Image Analysis, Institute of Mathematics and Computer Science, University of Münster, Münster, Germany

KESIĆ Srdian, PhD, research assistant professor

Department of Neurophysiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

KHALYAVKIN Alexander, PhD

Institute of Biochemical Physics of RAS; Institute for Systems Analysis, Federal Research Center "Computer Science and Control" of RAS, Moscow.Russia

KHVOSTIKOV Alexander, PhD

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

**KLIMENKOVA** Anna

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

**KOCHETOV E.** 

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

KOLAR-ANIĆ Ljiljana, PhD, acad SANS, emeritus professor Faculty of Physical Chemistry, University of Belgrade, Serbia

KULIKOV Sergei M., PhD, head

Biostatistics, National Research Center of Hematology RAS, Moscow, Russia

**KURETOVA** Ekaterina D.,

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

KURKINA Elena S., PhD, professor

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

**LEMOSERSKII Vladimir, PhD** 

Centre of Microtechnology & Diagnostics, Department of Electronics, St. Petersburg Electrotechnical University "LETI", St. Petersburg, Russia

#### I FVASHOVA Natalia

Faculty of Physics, Lomonosov Moscow State University, Moscow, Russia (w/Alla Sidorova, Anna Semina, Alina Melnikova)

LU Jian-Bo, PhD, associate professor, director

Biocomputing Lab, National Research Institute of Family Planning, Beijing, P.R.China

MIKHALSKIY Anatoliy, PhD, prof.; Jhanna NOVOSELTSEVA
Department of Incomplete Data Control, V.A. Trapeznikov Institute of Control
Sciences RAS. Moscow. Russia

MOZOKHINA Anastasia, PhD

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

NEDIĆ Slobodan, M.Sc., research associate

Faculty of Technical Sciences, University of Novi Sad, Serbia

PALANISAMY Rohini, biomed engg & maths, PhD candidate Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai, India

ROZHNOVA Tatyana, MD, PhD, assistant professor, Department of Medical Genetics, Sechenov University, Moscow, Russia

SIMAKOV Sergey S., associate professor, dr.

Moscow Institute of Physics and Technology, Dolgoprudny, Russia; Mathematical Modeling Laboratory, Sechenov University, Moscow, Russia

**SWAMINATHAN Ramakrishnan, PhD, professor, head**Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai, India

**UVARKIN I.** 

Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University, Moscow, Russia

VASILYEVA Nadezda, PhD, head

Mathematical Modeling Laboratory, Dokuchaev Institute of Soil Science, Moscow, Russia

VUKOJEVIĆ Vladana, PhD, associate professor

Center of Molecular Medicine, Department of Clinical Neuroscience, Karolinska Institutet, Solna, Sweden

XU Shu-Hua, PhD, professor, head

Max-Planck Interdisciplinary Research Group on Population Genomics, CAS-MPG Partner Institute on Computational Biology, Shanghai, P.R. China

ZIMINA Tatiana, associate professor, PhD

Centre of Microtechnology & Diagnostics, Department of Electronics, St. Petersburg Electrotechnical University "LETI", St. Petersburg, Russia

#### Venue

Moscow State Univ., 2<sup>nd</sup> Educat'l Bldg, CMC Fac, Leninskie Gory, GSP-1, 119991 Moscow, Russia.

#### Contacts

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# Lomonosov Moscow State University BIOKYBERNETIKA 2019

4th Russian-German Conference

"MultiScale BioMathematics – Coherent Modeling of Human Body System" jointly with

## **EURASIAN HEALTH 2019**

**2nd International Conference** 

"Molecular Health - From Cell to Population"

## GeneSEES IMPACT 2019 3rd Transcontinental Conference

"Comprehensive Understanding of Human Health and Impact From Person's Life-Sphere Surroundings in Populations Across the Eurasian Landmass" make

**EURASIA'S YOUNG SCIENCE TALENTED & AMBITIOUS** 

## **THE BIG BRAIN of 2019**

Conference for Collaboration in EurAsia Конференция по сотрудничеству в Евразии 2019г

2019 年並欧地区合作会议 पूर्व-पाश्चात्य जीवविज्ञानम् -2019

#### **Organizers**

acad RAS prof. Boris N. Chetverushkin prof. Jochen Mau (HHUD) prof. Sergey I. Mukhin prof. Sergey V. Bogomolov

**Special Organizer for Russian-German Cooperation in Health** 

foreign memb RAS prof. Helmut Hahn (KMF Berlin)

**International Co-Organizers** 

prof. Jürgen Hescheler (Cologne)
acad. prof. Ljiljana Kolar-Anić (Beograd)
acad. prof. Steffen Leonhardt (Aachen)
prof. Alessandro Villa (Lausanne)
prof. Guan-Yu Wang (Shenzhen)
prof. Shu-Hua Xu (Shanghai)
prof. Jian-Hua Zhang (Oslo)

30 September 04 October 2019
Moscow, Russia
Lomonosov Moscow State
University



#### **OPENING**

**Invited Welcome Address Ministry of Health (confirmation pending)** 

SALAGAY Oleg, Vice Minister of Health of Russian Federation Welcome Address Lomonosov Moscow State University N.N.

Welcome Address Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University N.N.

#### INTRODUCTION TO EURASIAN COLLABORATION

**HAHN Helmut** Berlin, Germany

Koch Metchnikov Forum - a German-Russian Non-Government Organization: A Model for Civil-Society Interaction in Politically Dynamical Times

MAU Jochen Düsseldorf/Krefeld, Germany

Collaborative Research in Health and Academic Medicine Across Eurasia: Mandate, Investment and Returns.

#### Reports<sup>24Sep2019</sup> sorted by Sections

#### **POPULATION STUDIES**

XU Shu-Hua Shanghai, P.R. China

The Genetic History and Adaptive Evolution of Tibetan Highlanders

**GERASIMOV Andrey Moscow, Russia** 

Accuracy and Effectiveness of Different Methods for Assessing Activity of Transmission Mechanism of Infectious Disease Pathogens

KULIKOV Sergei M. Moscow, Russia

**Chronic Leukemia - New Lessons from the Russian Registry** 

#### SYSTEMS GENETICS

KHALYAVKIN Alexander Moscow, Russia

The Strehler-Mildvan Correlation Explains the Origin of Aging LU Jian-Bo Beijing, P.R.China

**Prenatal Diagnosis of Fetal Trisomy From Maternal Plasma** 

**ROZHNOVA Tatyana Moscow, Russia** 

**Genetic Aspects of Assortative Marriages** 

VASILYEVA Nadezda Moscow, Russia

**Perspectives of Soil Model Development With Genomic Data** 

#### MATHEMATICS OF DYNAMIC SYSTEMS

NEDIĆ Slobodan Novi Sad. Serbia

Non-conservativeness of Natural Orbital Systems and Implications to Modeling of Complex Systems Dynamics

SIMAKOV Sergey Dolgoprudny; Moscow, Russia

Medical Applications of 1D Model of Cerebral Haemodynamics

#### **MATHEMATICS OF DYNAMIC SYSTEMS (ctd)**

MAU Jochen Düsseldorf-Krefeld, Germany

Mathematical Axiomatics of Functional Biodynamics, with Growing, Forced Learning, and Aging in Life Cycle.

#### PHYSICO-CHEMICAL MODELS

KOLAR-ANIĆ Ljiljana Belgrade, Serbia

Modelling the Neuroendocrine Hypothalamic-Pituitary-Adrenal (HPA) System.

ČUPIĆ Željko Belgrade, Serbia

Stability Analysis of the Model of Reaction Systems.

HEDRIH Andjelka Belgrade, Serbia

**Biological Oscillators in Reproductive Biology** 

#### **BIOMETROLOGY ENGINEERING**

ANDREEVA Natalia St. Petersburg, Russia

Multi-layer Memristive Devices for Spiking Neural Networks
With Unsupervised Learning (w/ D.Chigirev, A. Bokhov, M.Gerasimova)

LEMOSERSKII Vladimir St. Petersburg, Russia

Acousto-fluidic Functional Elements in Implementing Mini-

ature Biomedical Devices (w/ T.M..Zimina, E. Karibjanova, A. Koigerov)
ZIMINA Tatiana St. Petersburg, Russia

Hybrid-integrated Devices as an Efficient Tool of Fighting Antibiotic Resistance Problem (w/ V.V.Luchinin, V.V.Lemoserskii et al.)

#### **METHODS OF BIOMEDICAL ANALYSIS**

SWAMINATHAN Ramakrishnan Chennai, India

Validation of Electro-dermal Activity Signals With EEG

Responses: Issues and Challenges

**GANAPATHY Nagarajan Chennai, India** 

**Differentiation of Valence Emotional States in Localized EEG** 

Signals Using Motif Patterns

KESIC Srdjan Belgrade,Serbia

Higuchi Fractional Dimension and Neurophysiological Signal Processing

MIKHALSKIY Anatoliy, NOVOSELTSEVA Jhanna Moscow, Russia Selection of a Minimal Model for Individual Continuous Glucometer Curve

KLIMENKOVA Anna Moscow, Russia

Program and Positional Control Strategies for Anti-cancer

Therapy (w/ N.L. Grigorenko, E.N. Khailov, A.Korobeinikov)

PALANISAMY Rohini Chennai, India

Brainstem Median Ternary Pattern Analysis in Early Mild Cognitive Impairment Using Radial Basis Function Based Support Vector Machine

#### **IMAGE ANALYSIS**

JIANG Xiao-Yi Münster, Germany

**Biomedical Imaging: The Information Processing Perspective** 

VUKOJEVIĆ Vladana Solna, Sweden

Imaging of Molecular Mechanisms in Living Cells

KHVOSTIKOV Alexander Moscow, Russia

Histological Image Segmentation With a Trainable Active Contour Model (w/ Andrey Krylov, Ilya Mikhailov, Pavel Malkov)

#### Satellite Meeting 1: Organizer: J. Mau

"Initiative for Higher International Visibility of Clinical Research in the Russian Federation"

Invited Topic: Neurology Research
Predictors of Acute Cerebral Embolic Lesions During Carotid

**Artery Stenting** 

Tanashyan M.M.¹, Medvedev R.B.², Gemdzhian E.G.³, Skrylev S.I.⁴. Krotenkova M.V.⁵

<sup>1</sup>Marine M. Tanashyan- MD PhD. Professor, Deputy Director for Research & Head, 1-st Neurological Department; Research Center of Neurology, Moscow;

<sup>2</sup>Roman B. Medvedev - MD PhD. Researcher 1-st Neurological Department; Research Center of Neurology, Moscow.

<sup>3</sup>Eduard G. Gemdzhian, Senior Researcher of Biostatistics Laboratory; National Research Center for Hematology, Moscow.

<sup>4</sup>Sergei I. Skrylev - MD PhD. Head, Department of Vascular and Endovascular Surgery; Research Center of Neurology, Moscow.

Marina V. Krotenkova- MD PhD. Head, Radiology Department; Research Center of Neurology; Moscow.

### **Satellite Meeting 2:** Organizer: H. Hahn

Monday, 30 Sep 2019, 11 am, DWIH

"Opportunities from the New Russian-German Roadmap on Cooperation in Education, Science, Research and Innovation of 12/2018"

Host: Dr. A. HOESCHEN, Leiter der DAAD-Außenstelle Moskau / Руководитель Московского отделения, Германская служба академических обменов (DAAD), Московское отделение,

Venue: Ленинский проспект 95A, 119313 г. Москва,
Participants: forgn memb RAS prof H. HAHN; prof J. MAU;
prof. PAVLOV V.N., rector BashGMU, Ufa, (conf. pending);
LAPSHIN V.N., PhD, dir Programs&Strategies, VEB, Moscow;

N.N.