Scientific Recognition: Advanced Systems Analysis

Awards

Yuri Ermoliev

- Medal for Contribution to the Development of Science. National Academy of Sciences, Kiev, Ukraine, October 2016

Brian Fath

- Prigogine Medal 2016. Awarded by the University of Siena and the Wessex Institute of Technology to a leading scientist in the field of ecological systems. Alicante, Spain, July 2016

Invited lectures

Sergey Aseev

- Federal Research Center of Computer Science and Control, Russian Academy of Sciences, Moscow, Russia, VIII Moscow International Conference on "Operations Research (ORM 2016)": The unified maximum principle for optimal economic growth problems, October 2016
- Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on "Systems Analysis: Modeling and Control": Existence and boundedness of optimal controls in infinite-horizon problems, October 2016
- Steklov Mathematical Institute, Russian Academy of Sciences, Moscow, Russia, International Conference dedicated to the 80th birthday of Yu. S. Osipov, "Dynamical Systems: Inverse Problems, Stability, and Control Processes": The unified maximum principle for infinite-horizon optimal control problems in economics, September 2016

Artem Baklanov

- Ural Federal University, Ekaterinburg, Russia: Mathematical modeling in systems engineering, April 2016

Alexey Davydov

- Nizhniy Novgorod, Russia, International Conference dedicated to the 70th birthday of V.Z. Grines "Topological Methods in Dynamics": Structural stability of binary differential equations, December 2016
- Vienna University of Economics and Business, Vienna, Austria, Viennese Vintage Workshop 2016 on "Heterogeneous Dynamic Models of Economic and Population Systems": Averaged optimization and cyclicity, December 2016
- Moscow, Russia, Third Russian-Chinese Conference on "Complex analysis, algebra, algebraic geometry and mathematical physics": Theory of normal forms of linear second order mixed type PDEs on the plane, May 2016
- University of Liverpool, Liverpool, UK, "LMS Singularity Day": Controllability of generic systems, its singularities and stability, March 2016

Yuri Ermoliev

- National Academy of Sciences, Kiev, Ukraine, Workshop on "Integrated modeling of food, energy and water security management for sustainable social, economic and environmental developments": Integrated modeling of food security management in Ukraine, December 2016
- National Academy of Sciences, Kiev, Ukraine, Workshop on "Integrated modeling of food, energy and water security management for sustainable social, economic and environmental developments": Linking distributed model for food-energy-water-environmental nexus, December 2016
- National Academy of Sciences, Kiev, Ukraine, Workshop on "Integrated modeling of food, energy and water security management for sustainable social, economic and environmental developments": Robust food-energy-water nexus management for sustainable development, December 2016

Brian Fath

- Bureau of Ocean Energy Management, Department of Interior, Sterling, Virginia, USA: Resilience along the adaptive cycle: lessons for life-cycle preparedness, September 2016
- Montpellier, France, "EcoSummit 2016": Ecological and social system bioenergetics: open loop or autocatalytic, August 2016
- Alpbach, Austria, "European Forum Alpbach, Technology Symposium": Understanding ecosystem dynamics for design of socio-economic systems: following nature's way, August 2016
- University of Natural Resources and Life Sciences, Vienna, Austria, Summer School on "Alternative Economic and Monetary Systems": Cycles and time constants in nature, August 2016

- Alicante, Spain, 11th International Conference on "Sustainable Cities": Systems ecology, energy networks, and a path to sustainability, Keynote Prigogine Award Lecture, July 2016
- Alicante, Spain, 11th International Conference on 'Sustainable Cities': Urban Metabolism and Regenerative Economics, July 2016
- Danube Research Center, Hungarian Academy of Sciences, Budapest, Hungary: Systems ecological approaches to analyze network of networks, June 2016
- Trenton, New Jersey, USA, Workshop on "Research Alliance for Regenerative Economics": Resilience and navigating the adaptive cycle, May 2016
- Towson University, Townson, Maryland, USA, Conference on "International Society for Ecological Modelling Global": Flourishing within the limits, May 2016
- Washington DC, USA, 16th Annual Conference of the National Council for Science and the Environment on "S-A5 Metrics for Food-Energy-Water Projects": Food-energy-water nexus: network metrics, January 2016
- Washington DC, USA, 16th Annual Conference of the National Council for Science and the Environment on "World Café on Models, Metrics, and Data": Food-energy-water nexus: The role for energy network science, January 2016

Leena Ilmola

- Helsinki, Finland, "Finnish Parliament Hearing for the Futures Committee": Welfare Society 2030 update, November 2016
- State Technology Research Center VTT, Helsinki, Finland: Power distribution and new economic structures, October 2016
- Organisation for Economic Co-operation and Development, Paris, France, Conference on "High Level Risk Policy," September 2016
- Porto, Portugal, Helsinki University of Arts Course on "Advanced Systems Analysis - Qualitative systems analysis method," September 2016
- Stevens Institute of Technology, Hoboken, New Jersey, USA, "Global X-network Conference": The New Global Economic Structures and Uncertainty, April 2016
- University of Tampere, Finland, Tampere, Conference on "Anticipation of the new economic structures and their impact on Finland": How to build a resilient future, March 2016
- Helsinki, Finland, "Finnish Parliament First Hearing for the Futures Committee": Welfare Society 2030, February 2016
- Jerusalem, Israel, Israeli PMO Seminar for "Anticipatory strategy building": Case: 7 Shocks and Finland, February 2016
- Aulanko, Finland, "International Relationships Conference": How to deal with uncertainty in policy planning, January 2016

Matthias Jonas

- Austrian Academy of Sciences, Vienna, Austria, Workshop on "Earth Systems Sciences Project": Toward handling uncertainty in prognostic scenarios: Advanced learning from the past, January 2016

Tapio Palokangas

- Vienna University of Economics and Business, Vienna, Austria, Viennese Vintage Workshop 2016 on "Heterogeneous Dynamic Models of Economic and Population Systems": Fertility, Mortality and environmental Policy, December 2016
- Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on "Systems Analysis: Modeling and Control": Emission Permit Management with Simultaneous Localized and Global Externality Problems, October 2016
- Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on "Systems Analysis: Modeling and Control": Fertility, Mortality and Environmental Policy, October 2016
- Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on "Systems Analysis: Modeling and Control": Land Reforms and Population Growth, October 2016
- Helsinki, Finland, Conference on "European Trade Study Group (ETSG)": Labor Market Regulation, International Trade and Footloose Capital, September 2016
- Nottingham, UK, Conference on "Dynamics, Economic Growth and International Trade (DEGIT)": Labor Market Regulation, International Trade and Footloose Capital, September 2016

Sebastian Poledna

- Awaji, Japan, International Workshop on "Priority Issue 3 to be Tackled by Using Post K Computer, Development of integrated simulation system for earthquake and tsunami hazards and disasters": Macroeconomic modeling with a massively parallel agent-based model and big-data, December 2016
- Johannesburg, South Africa, "SASAC High-level System Analysis Capacity Strengthening Three Week Programme 2016": Financial networks and agent-based modeling of systemic risk, August - September 2016

Elena Rovenskaya

- Vienna University of Economics and Business, Vienna, Austria, Viennese Vintage Workshop 2016 on "Heterogeneous Dynamic Models of Economic and Population Systems": Optimal control of forest harvesting in a size-structured population model with feedback between growth parameters and density, December 2016
- International Institute for Applied Systems Analysis, Laxenburg, Austria, Visit of a Delegation of Young Scientists from Universities of the Russian Federation: Mathematical modeling of natural resource management, November 2016
- Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on "Systems Analysis: Modeling and Control": Reconciling information from climate-economic model ensembles, October 2016
- Water Problems Institute, Russian Academy of Sciences, Moscow, Russia: On some research directions of IIASA's Advanced Systems Analysis Program related to water problems, September 2016
- Steklov Mathematical Institute, Russian Academy of Sciences, Moscow, Russia, International conference dedicated to the 80th birthday of Yu. S. Osipov, "Dynamical Systems: Inverse Problems, Stability, and Control Processes": Optimal control of forest harvesting in a size-structured population model with feedback between growth parameters and density, September 2016
- Sochi, Russia, Conference on "Data Intensive System Analysis for Geohazard Studies": Reconciling information from climate-economic model ensembles, July 2016
- Institute of Geography, Russian Academy of Sciences, Moscow, Russia: Examples of the application of mathematical methods to solving decision making problems related to the natural resources management and sustainable development, April 2016

Stefan Thurner

- Pohang, South Korea, Asia Pacific Center for Theoretical Physics 2016 Workshop on "Frontiers of Physics: Push the Envelope of Statistical Physics: Econo, Social, Bio and Beyond": Understanding urbanisation, technological change, and their social, and economic impact, December 2016
- Salzburg, Austria, "6 Jahrestagung der österreichischen Gesellschaft für Laboratoriumsmedizin und klinische Chemie" Conference: Big Data Analyse in der Medizin, keynote presentation, November 2016
- Rome, Italy, "Kreyon Day 2016" Workshop: Vision for principles for creativity and innovation, October 2016
- Ludwig-Maximilians-University, Munich, Germany, Workshop on "What's new in networks? – Building bridges between computational, mathematical and statistical network analysis": Managing Systemic Risk in Financial Multilayer Networks, keynote presentation, October 2016
- Leiden, The Netherlands, "Leiden Networks Day" Workshop: How financial multilayer networks create systemic risk - and how to manage it, keynote presentation, September 2016
- Amsterdam, The Netherlands, Conference on Complexity Systems (CCS) 2016 "Santa Fe Institute Workshop": Understanding of Power laws in Path Dependent Processes, September 2016
- Amsterdam, The Netherlands, CCS 2016 Conference on "Information Processing in Complex Systems: Classical and Quantum": Entropy for complex systems, keynote presentation, September 2016
- Amsterdam, The Netherlands, CCS 2016 Conference on "Determinants of Creativity and Innovation in Science, Art and Technology": Combinatorial Evolutionary Dynamics as a Prototype for Complex Systems, September 2016
- Amsterdam, The Netherlands, CCS 2016 Satellite Conference on "Social and Economic Change as a Complex Dynamical System": How to measure, manage and eliminate systemic risk in the financial system, September 2016
- Cambridge, UK, Conference on "Financial Risk and Network Theory": Systemic risk in financial multilayer networks - and how to manage it, keynote presentation, September 2016
- Lipari School, Lipari, Italy, Summer School on "Computational Complex and Social Systems": Quantifying behaviour of humans and their interactions: what we can learn about our species from virtual worlds, July 2016
- Seoul, South Korea, NetSci 2016 Satellite Meeting on "Network Medicine": Understanding medicine and the healthcare system from big medical re-use data May 2016
- Seoul, South Korea, NetSci 2016 Satellite Meeting on "Networks and Technology Evolution": How a fully endogenous combinatorial model of evolution explains booms and busts in economic development, May-June 2016
- Seoul, South Korea, "NetSci School 2016": Networks in socio-technical systems I, May-June 2016
- Seoul, South Korea, "NetSci School 2016": On the Origin of Power Laws in Targeted Diffusion on Networks, keynote presentation, May-June 2016
- Vienna, Austria, "eHealth Summit 2016: Using big medical data for predicting health trajectories and implications for prevention strategies, keynote presentation, May 2016
- Nanyang Technological University, Nanyang, Singapore, Winter School 2016 on "Complexity Science": From Data to Medicine, March 2016
- Central European University, Center for Network Science, Budapest, Hungary: What We Can Learn about the Homo Sapiens from MMOGs, February 2016

Matthias Wildemeersch

- College of Urban and Environmental Sciences, Peking University, Beijing, China: Systems Science: Systemic risk, resilience, and critical transitions in networked systems, March 2016
- IMDEA Networks Institute, Madrid, Spain: Topology and connectivity in large-scale networks, February 2016

Organized events

Matthias Jonas

- ClimTrans2050 Scientific Community Workshop, Vienna, Austria, March 2016

Stefan Thurner

- Complexity Science Hub (CSH) Workshop Series on Approaches to Evolution of Complex Systems, Vienna, Austria, November 2016
- CSH Workshop Series on Future Directions in Medical Data Science, Vienna, Austria, October 2016
- CCS 2016 Santa Fe Institute Workshop, Amsterdam, The Netherlands, September 2016
- Conference on Complex Systems, Amsterdam, The Netherlands, September 2016
- Technology Symposium on Complexity and the new Enlightenment, Alpbach, Austria, August 2016
- CSH Workshop Series on Dynamic networks, autocatalytic sets, and evolutionary dynamics, Vienna, Austria, May 2016
- CSH Opening Conference on Visions for Complexity, Vienna, Austria, May 2016
- CSH-KLI Workshop and Retreat, Klosterneuburg, Austria, April 2016

Advisory boards and committees

Sergey Assev

- Member, Scientific Council of the Research Program of Presidium of Russian Academy of Sciences, Mathematical Problems of Contemporary Control Theory
- Member, Technical Committee on Optimal Control (TC 2.4) of the International Federation of Automatic Control

Alexey Davydov

- Cochair, Organizing Committee, International Conference on Differential Equations and Dynamical Systems, Suzdal, Russia
- Chair, Program Committee, International Young Scientists Course on Modeling and Optimization of Complex Systems, Vladimir, Russia
- Head, Mathematical Commission, The Federal Agency for Scientific Organizations, Russia

Yuri Ermoliev

- Member, Committee for Systems Analysis, National Academy of Sciences, Ukraine
- Member, Organizing Committee, International Conference on Problems of Decision Making under Uncertainties, Ukraine
- Member, Organizing Committee, International School Course on Problems of Decision Making under Uncertainties, Ukraine
- Member, Organizing Committee, Workshop on Integrated modeling of food, water, energy security, Ukraine

Brian Fath

- Chair, Ecosystem Dynamics, Focus Research Group, Community Surface Dynamics Modelling System
- President, North American Chapter of International Society for Ecological Modelling
- Chair, International Society for Ecological Modelling Global Conference
- Member, Advisory Committee, EcoSummit 2016: Engineering Change
- Panelist, New Vienna Congress Lab: Towards a new European narrative
- Panelist, Trans-Atlantic Research and Development Interchange on Sustainability Scientific Workshop

Leena Ilmola

- Member, Board of the Finnish Futures Society
- Scientific Facilitator, The Global X-network

Elena Rovenskaya

- Member, Program and Organizing Committees, International Conference dedicated to the memory of Academician A.V. Kryazhimskiy on Systems Analysis: Modeling and Control
- Member, Organizing Committee, International Conference dedicated to the 80th birthday of Yu. S. Osipov, on Dynamical Systems: Inverse Problems, Stability, and Control Processes
- Member, Program Committee, International Conference on Data Intensive System Analysis for Geohazard Studies

Stefan Thurner

- Delegate, Management Committee of the Republic of Austria to Snowscape Cost Action Network
- Member, Kuratorium Forum Alpbach

Editorships

Sergey Aseev

- Deputy Editor-in-Chief, *Proceedings of the Steklov Mathematical Institute*

Alexey Davydov

- Member, Editorial Board, *Journal of Dynamical and Control Systems*
- Member, Editorial Board, *Izvestia: Mathematics*

Yuri Ermoliev

- Member, Editorial Board, *Cybernetics and Systems Analysis Journal*
- Coeditor, Book entitled *Integrated modeling of food, energy and water security management for sustainable social, economic and environmental developments*

Brian Fath

- Editor-in-Chief, *Ecological Modelling Journal*
- Editor-in-Chief, *Encyclopedia of Ecology*
- Member, Editorial Board, *Ecological Indicators*
- Member, Editorial Board, *Environmental Accounting and Management*
- Member, Editorial Board, *Ecological Complexity*
- Member, Editorial Board, *Ecological Informatics*
- Member, Editorial Board, *The Scientific World Journal*
- Member, Editorial Board, *International Journal of Ecodynamics*

Matthias Jonas

- Lead Guest Editor, *Mitigation and Adaptation Strategies for Global Change Journal*

Tapio Palokangas

- Associate Editor, Economics: *Open-Access Open-Assessment E-Journal*

Gerald Silverberg

- Member, Editorial Board, *Cliometrics Journal*
- Member, Editorial Board, *Journal of Economic Behavior and Organization*
- Member, Editorial Board, *Journal of Evolutionary Economics*
- Member, Editorial Board, *Structural Change and Economic Dynamics Journal*

Stefan Thurner

- Member, Editorial Board, *Scientific Reports Journal*
- Associate Editor, Advances in Complex Systems, *World Scientific Journal*
- Member and Advisory, Editorial Board, Springer Complexity Program
- Associate Editor, *Physica A Journal*
- Member, Editorial Board, *Condensed Matter Physics Journal*
- Member, Editorial Board, *Frontiers in Fractal Physiology Journal*
- Member, Editorial Board, World Scientific Series, *Exploring Complexity Journal*