

## Scientific Recognition: Advanced Systems Analysis

### Invited lectures and presentations

#### *Sergey Aseev*

- Moscow, Russia, Workshop dedicated to the memory of Academician A.N. Tikhonov "Tikhonov readings – 2015": Existence and boundedness of optimal controls in models of optimal economic growth – 26 October – 2 November 2015
- Suzdal, Russia, Conference on "Mathematical Control Theory and Mechanics": On application of optimal control theory to problems in economics – 3-7 July 2015
- Vienna University of Technology, Vienna, Austria, 13th Viennese Workshop on "Optimal Control and Dynamic Games": Adjoint variables and intertemporal prices in optimal economic growth problems – 13-16 May 2015

#### *Alexey Davydov*

- Maykop, Adygea, Russia, Conference on "Universities in the search and support of mathematically gifted children and youth scientists": Stability and its manifestation in nature – 8-10 October 2015
- Centre International de Rencontres Mathématiques, Luminy, France, Conference on "Real Singularities and Applications": Generic singularities of parametric optimization and their applications – 16-20 February 2015

#### *Brian Fath*

- Hebei University, Baoding, China: Sustainability of ecological and socio-ecological systems – 20 December 2015
- IIASA, Laxenburg, Austria, "Systems Analysis 2015" Conference: Sustainability of complex systems: Insights from ecological dynamics and systems thinking – 11-13 November 2015
- Boulder, USA, Conference on "Community Surface Dynamic Modeling System": Quo vadis ecosystem: insights from ecological modelling and systems ecology, Keynote presentation – 27-28 May 2015
- West University, Timisoara, Romania: Flourishing within the limits – 15 May 2015
- Stockholm, Sweden, "9th Biennial Conference on Advances in Energy Studies": Energy network science to assess social and ecological resilience and systemic health: focus on ecosystems, economic systems, and urban metabolism, Keynote presentation – 4-7 May 2015
- Parthenope University, Naples, Italy: Network of networks: analysis of coupled human-environment systems and sustainability assessment – 1 April 2015
- Ispra, Italy, Experts' round table on "How practice theory and complex adaptive systems theory can inform future energy conservation policies": How system thinking approaches and the notion of energy metabolism of urban socioeconomic sectors can inform energy conservation policies – 26-27 February 2015
- Vienna, Austria, "4th Viennese Talks on Resilience and Networks: The Austrian Road to Resilience": Science of sustainability, resilience, and cohesion – 28 January 2015
- University of Free State, Bloemfontein, South Africa, SA-YSSP: Systems analysis and holism: Making a science of inter-dependence – 21 January 2015
- Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China: Land use valuation of ecosystem services in Baltimore County, Maryland: Adaptive change along the complex systems cycle – 7 January 2015

#### *Leena Ilmola*

- Helsinki, Finland, Finnish Parliament Hearing for the Futures Committee: Key global drivers; uncertainty and resilience requirements – 10-11 November 2015
- Science and Technology Policy Institute (STEPI), Seoul, South Korea, "International Foresight and Modeling Seminar": Agent-based modeling as a laboratory for foresight – 22-23 October 2015
- Stockholm University, Stockholm, Sweden, Nordic PhD course in "Advanced Systems Analysis": Energy uncertainty, Agent-based Modeling and Korea – 16-17 September 2015
- Organisation for Economic Co-operation and Development, Paris, France, Workshop on "Decision-Support Tools for Policy Dialogues on Water-Food-Energy Nexus in the region of Eastern Europe, Caucasus and Central Asia (EECCA)": Global drivers of change – 2-3 July 2015
- Swiss Confederation, Geneva, Switzerland, The Fourth Organisation for Economic Co-operation and Development Workshop on "Strategic Crisis Management": Anticipating crises and their potential pathways – 28-29 May 2015
- Center of Theoretical Studies, Prague, Czech Republic, "Global X-network Conference": The Taxonomy of Uncertainty – 20 April 2015

*Matthias Jonas*

- Lviv Polytechnic National University, Lviv, Ukraine: A metric for the prognostic outreach of scenarios: Learning from the past to establish a standard in applied systems analysis – 13 October 2015
- Cracow, Poland, 4th International Workshop on “Uncertainty in Atmospheric Emissions”: A metric for the prognostic outreach of scenarios: Learning from the past to establish a standard in applied systems analysis – 7-9 October 2015

*Sebastian Poledna*

- IIASA, Laxenburg, Austria, Workshop on “Nordic Systems Analysis”: Systemic Risk Research at IIASA – 10 November 2015
- Organisation for Economic Co-operation and Development, Paris, France, Workshop on “Complexity of the Economy”: Research and Policy Implications: Elimination of systemic risk in financial networks by means of a systemic risk transaction tax – 26-27 October 2015

*Gerald Silverberg*

- Science Policy Research Unit, University of Sussex, UK: Global, endogenous, unique, evolutionary: Sleuthing the Industrial Revolution – 16 October 2015
- Lipari, Italy, Growthcom Summer School: Is Schumpeter Still a Useful Guiding Light for Global Innovation and Growth Research? – 7-11 September 2015
- University College Maastricht, Maastricht, the Netherlands, Lecture series “Pluralism in Economics”: It Takes Two to Tango (Tango?) and What Goes Around Comes Around: Some Simple Principles for Understanding Economic Complexity” – 14 April 2015

*Nikita Strelkovskii*

- Lomonosov Moscow State University, Moscow, Russia, Workshop dedicated to the memory of Academician A.N. Tikhonov “Tikhonov readings – 2015”: On the Guiding Program Package Construction Computational Method for the Guidance Problem with Incomplete Information for Linear Systems. – 26 October-2 November 2015
- Vienna University of Technology, Vienna, Austria, 13th Viennese Workshop on “Optimal Control and Dynamic Games”: Program Packages Method for Solving Closed-loop Guidance Problem with Incomplete Information for Linear Systems – 13-16 May 2015
- Institute of Control Sciences, Russian Academy of Sciences, Moscow, Russia, The Seventh All-Russia Scientific-Practical Conference on “Simulation and its Application in Science and Industry – Simulation. The Theory and Practice”: Integrated Socio-economic Agent-based Model Dream Valley: Case-study of Korea – 21-23 October 2015

*Stefan Thurner*

- Ca’Foscari University of Venice, Venice, Italy: Understanding human behavior from game worlds – 20-22 December 2015
- Nové Hradky, Czech Republic, “Complexity Colloquium”: General overview of the group’s research fields and results – 10-11 December 2015
- Vienna, Austria, “HIS – CSHV: Get to know each other workshop”: Presentation of research: previous projects, agent based modeling etc. – 9 December 2015
- Zurich, Switzerland, “ETH Risk Center Seminar Series”: Elimination of Systemic Risk in Financial Multilayer Networks – 1 December 2015
- Bonn, Germany, Meeting of the “Fachbeirates der Bundesanstalt für Finanzdienstleistungsaufsicht”: Management systemischer Risiken – 17 November 2015
- Vienna, Austria, “Forum für medizinische Fortbildung: Gynäkologie”: What if we know everything? Using big data to understand the Homo sapiens and its society, keynote presentation – 12-14 November 2015
- Laxenburg, Austria, “Systems Analysis 2015” conference: Management of systemic risk – 11-13 November 2015
- Vienna, Austria, conference on “Tage der Personalisierten Medizin 2015”: Biostatistische Herausforderung individualisierter Therapieansätze – 6-7 November 2015
- Turin, Italy, conference on “Challenges in Data Science: a complex systems perspective”: What if you know everything? Lessons on the nature of the Homo sapiens from big online game data – 14-17 October 2015
- Tempe, Arizona, conference on “Complex Systems - CCS 2015”: What to Do If You Know Everything? Understanding Human Behavior in a Virtual World, keynote presentation – September 28 – 2 October 2015
- Rheinisch-Westfälische Technische Hochschule Aachen University, Aachen, Germany, Workshop on “Decisions under uncertainty”: Systemic risk and its management – 21-25 September 2015
- University of Barcelona, Barcelona, Spain, “LASAGNE Conference 2015”: Financial multiplex networks and systemic risk – 17-18 September 2015
- Prague, Czech Republic, “Econophysics Colloquium 2015”: Systemic risk elimination in financial multiplex network – 14-16 September 2015
- Rome, Italy, “Kreyon Day 2015 Workshop”: Taking Schumpeter seriously - an evolutionary model for innovation dynamics – 13 September 2015
- Osaka, Japan, “UBICOMP 2015 Workshop”: What if you know it all? Quantifying human behavior from a virtual world – 7-11 September 2015

- London, UK, Santa Fe Institute seminar on “Reinventing the Investment Industry”: Eliminating Systemic Risk in Financial Markets – 1 September 2015
- Erice, Italy, International course on “New Trends in Statistical Mechanical Foundations of Complexity: Applications in high energy and plasma physics, long-range interactions, edge-of-chaos and elsewhere”: A theory of generalized entropies and where it applies – 27 July – 3 August 2015
- Barcelona, Spain, “V Summer School on Statistic Physics of Complex and Small Systems”: Information theory for complex systems – 6-17 July 2015
- Dresden, Germany, Workshop on “Mathematics and Physics of Multilayer Complex Networks”: Systemic risk in financial multiplex networks – 5-8 July 2015
- Athens, Greece, “4th International Young Scientists Conference”: Big Data Driven Social Science - What Can We Learn About The Homo Sapiens? – 25 June – 3 July 2015
- Amsterdam, the Netherlands, 10th Tinbergen Institute Conference on “Complexity in Economics and Finance”: Elimination of Systemic Risk Through a Systemic Risk Transaction Tax – 18-20 May 2015
- Vienna, Austria, “37th European Conference on Information Retrieval”: What to do if you know everything? Studying human behavior in a virtual world, Keynote presentation – 29 March – 2 April 2015
- Social and Evolutionary Neuroscience Research Group, University of Oxford, Oxford, UK: Quantifying virtual worlds – 17 March 2015
- Ministry of Finance, Berlin, Germany: Elimination of systemic risk in financial markets by a systemic risk tax – 13 March 2015
- University of Veterinary Medicine, Vienna, Austria: Complex Systems – 10 March 2015
- Nanyang, Singapore, Para Limes Conference 2015 on “Emerging Patterns”: Emergence of a Comprehensive Understanding of Scaling Patterns in Nature – 2-4 March 2015
- Nanyang, Singapore, “NTU-Warwick Winter School on Complexity”: What is systemic risk in financial markets and how to eliminate it – 23-27 February 2015
- Vienna, Austria, Workshop on “(Un)Calculable Conflicts. Complexity, Mathematics und Historical Research”: Quantification of humans in virtual worlds – 19 February 2015
- Institute for Scientific Interchange, Turin, Italy: Entropies for Complex Systems – 19-20 January 2015
- St. Gilgen, Austria, Conference on “Taking Innovation from Universities to Markets”: Complex Systems Research: Data driven advances and applications – 8-10 January 2015
- Federal Financial Supervisory Authority, Bonn, Germany: Nachhaltige Reduzierung des systemischen Risikos mittels Finanztransaktionssteuer – 12 January 2015
- London, UK, “CRISIS Final Meeting”: Policy experiments with the comprehensive macro-financial model – 9 January 2015

## 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*

### *Brian Fath*

- Editor-in-Chief, *Ecological Modelling Journal*
- 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*

- Co-editor, *Greenhouse Gas Inventories: Expanding Our Uncertainty Perspective* book

### *Tapio Palokangas*

- Associate editor, *Economics: Open-Access Open-Assessment Journal*

*Elena Rovenskaya*

- Guest co-editor, Special journal issue based on IIASA's 40th Anniversary Conference, *Technological Forecasting and Social Change*

*Gerald Silverberg*

- Member, Editorial Board, *Cliometrics*
- 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*

**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*

- Member, Council of Mathematical section of Russian Academy of Sciences
- Co-chair, Organizing Committee, International Conference on Mathematical control Theory and Mechanics, Suzdal, Russia
- Member, Scientific Committee, International Scientific Conference on Autumn Mathematical Readings in Adygea, Maykop, Russia
- Member, Program Committee, International school for young scientists on Modeling and Control of Complex Systems (MCCS 2015), Suzdal, Russia
- Member, Program Committee, International Conference on Singularities in Generic Geometry and its Applications, Kobe, Japan

*Yuri Ermoliev*

- Acting Member, National Academy of Sciences, Ukraine
- Member, Committee for Systems Analysis, National Academy of Sciences, Ukraine
- Member, Organizing Committee and Advisory Board, International Conference on Decision Making under Uncertainties

*Brian Fath*

- Chair, Ecosystem Dynamics, Focus Research Group, Community Surface Dynamics Modelling System
- President, North American Chapter of International Society for Ecological Modelling
- Chair, Baltimore County Commission on Environmental Quality

*Leena Ilmola*

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

*Matthias Jonas*

- Member, Steering Committee, 4th International Workshop on Uncertainty in Atmospheric Emissions

*Elena Rovenskaya*

- Scientific Co-coordinator and Program Committee Member, Summer Academy on Economic Growth and Governance of Natural Resources (MSA2015), Moscow, Russia
- Vice-Chair, Systems Analysis 2015 Conference, IIASA

*Stefan Thurner*

- Member, Price Jury, Paul Watzlawik
- Member, Price Committee, Econo-and Sociophysics Young Researcher Award, Deutsche Physikalische Gesellschaft
- Delegate, Management Committee of the Republic of Austria to Snowscape Cost Action Network