

# **Scientific Recognition: Advanced Systems Analysis**

### **Awards**

#### Yuri Ermoliev

• Elected Professor of the China University of Mining and Technology, Beijing (CUMTB), 2014-2017

#### Peter Havlik

• N.D. Kondratieff Honorary Award issued by the International Fund of N.D. Kondratieff and the Russian Academy of Social Sciences, Moscow, 2010-present

#### **Invited lectures**

### Sergey Aseev

- Ekaterinburg, Russia, International Conference dedicated to the 90th Anniversary of Academician N.N. Krasovskii on "Systems Dynamics and Control Processes": Maximum principle for Infinite-Horizon Optimal Control Problems under Weak Regularity Assumptions
- Moscow, Russia, Workshop dedicated to the memory of Academician A. N. Tikhonov "Tikhonov readings 2014": Adjoint variables and intertemporal prices in infinite-horizon optimal control problems in economics

### Alexey Davydov

- Lake Baikal, Siberia, The International Conference on "Geometric Control Theory and Analysis on Metric Structures": Optimal stationary modes of cyclic utilization of renewable resources
- Moscow, Russia, The 7th International Conference on "Differential and Functional Differential Equations": Optimal Stationary Cyclic Utilization of Renewable Resources
- Moscow, Russia, International Workshop on "Spatio-temporal dynamical systems": Optimal Stationary Cyclic Utilization of Renewable Resources
- Ekaterinburg, Russia, International Conference on "System Dynamics and Control Processes": Singularities of Parametric Optimization and Applications
- Center of Advanced Studies, Warsaw University of Technology, Poland, Workshop on "Analytic and algebraic singularities": Singularities of parametric optimization and their applications
- Center of Advanced Studies, Warsaw University of Technology, Poland, Workshop on "Analytic and algebraic singularities": Stability and structural stability
- Center of Advanced Studies, Warsaw University of Technology, Poland, Seminar on "Singularity Theory": Averaged optimization of cyclic processes and its generic Singularities

#### Brian Fath

- Nanjing, China, "9th International Conference on Ecological Informatics": Network Based-Information Indicators: Configurations toward Optimal Robustness, Keynote presentation
- Stockholm Resilience Alliance, Sweden: Navigating the Adaptive Cycle: An Approach to Measuring the Resilience of Social Systems
- Durham, USA, "Inter-disciplinary Salon on Resilience and Systemic Health": Applying Energy Network Analysis to Economic Flows
- Stevenson University, USA, "Stevenson University Earth Day Activities": Is Sustainability Still Possible?
- Stevens Institute of Technology, Hoboken, USA: Sustainability and the Complex Systems Cycle: Ecosystem Growth, Development, and Collapse
- Chinese Academy of Sciences, Beijing, China, International Workshop on "Urban Eco-Complex Modelling": Patterns of sustainable urban systems: Networks and biomimicry, Keynote presentation
- College of Global Change and Earth Systems Science, Beijing Normal University, Beijing, China: Global systems perspective of socio-ecological systems: Setting the stage
- Santiniketan, India, International Conference on "Environmental Biology and Ecological Modelling": Sustainable Networks and the Complex Systems Cycle, Keynote presentation
- University of Free State, Bloemfontein, South Africa, SA-YSSP: Applied Systems Analysis for Ecosystem and Environmental Management

#### Peter Havlik

- Fontes Rerum, Prague, Czech Republic: Eurozone, Euro and the Czech Republic
- Vienna, Austria, "JETRO" Seminar: Economic Convergence and Outlook for Central, East and Southeast Europe

- Joint Vienna Institute, Vienna, Austria, Seminar on "Competitiveness, growth and crisis": Unit labour costs developments
- IIASA, Laxenburg, Austria, Workshop on "Methodology for Assessing Effects of Regional Economic Integration": Challenges and Opportunities of Eurasian Economic Integration
- Wiiw, Vienna, Austria, "Wiiw Spring Seminar": Ukraine, Russia and the European Union: Economic Consequences of the Conflict
- University for International and Public Relations, Prague, Czech Republic, "Europe Day": Economic Convergence and Outlook for Central, East and Southeast Europe
- New York, USA, "Investors & Business Conference 2014, 21st Austria": Ukraine, Russia and the European Union: Economic Consequences of the Conflict, Keynote presentation
- IIASA, Laxenburg, Austria, Workshop on "Trade Policy Regimes": Russia and the European Union: Economic Consequences and Prospects for Resolution of the Current Conflict
- Vienna, Austria, "JVI European Integration Seminar": Challenges and Opportunities of Eurasian Economic Integration, Keynote presentation
- Vienna, Austria, Conference on "IDM/HRF/RBI Wirtschaft und Politik in Ostmitteleuropa 10 Jahre nach der EU-Erweiterung": Tschechien, Slowenien, Slowakei und Ungarn
- Economic Institute, Slovak Academy of Sciences, Bratislava, Slovakia: Economic Consequences of Ukraine's Conflict
- Centre for Research into Economic and Sociocultural Upward Enhancement of CIS Countries, Central and Eastern Europe (RESCUE), St. Petersburg, Russia: Economic Consequences of Ukraine's Conflict
- IIASA, Laxenburg, Austria, Workshop on "Non-Tariff Barriers and Technical Regulations": Economic Consequences of Ukraine's Conflict: an example of non-tariff barriers' effects
- Wirtschaftskammer, Vienna, Austria, "Wirtschaftssanktionen EU Russland", Panelist Forum
- Vienna, Austria, "Zwischen Umbruch und Stabilität Ukraine und der Westbalkan im Fokus", Panelist

### Leena Ilmola

- Prague, Czech Republic, Center for Theoretical Studies (CTS): Elements for the Theory of Surprise
- Jerusalem, Israel, Ministry of Foreign Affairs Seminar on "Complexity": Resilience of National Economy
- Okinawa, Japan, "The Global Carbon project: Scenario workshop": Uncertainty in the long term scenario building
- Seoul, South Korea, "STEPI Expert Seminar": Agent-based modeling in foresight
- Tokyo, Japan, Tokyo Institute of Technology Seminar: Social resilience and trust
- Beppu, Japan, International Symposium on "Artificial Life and Robotics": Urban
- system shocks and resilience
- Hoboken, USA, 2014 CESUN Conference on "4th International Engineering Systems Symposium": Seven Shocks in Korea and Finland
- Helsinki, Finland, Sitra Security Forum: Resilience and Security
- Helsinki, Finland, Finnish Parliament Hearing: Comments on the Finnish Government's Futures review
- Helsinki, Finland, Seminar on "Foresight": How to meet uncertainty of the global system
- Paris, France, OECD Ambassador Meeting: How to build national resilience

### Gerald Silverberg

- Rome, Italy, Conference on "Explaining Economic Change": Sleuthing the Industrial Revolution
- Jena, Germany, "International Schumpeter Society Conference", Plenary Session Chair

### Alexander Tarasyev

• Ural State Economic University, Ekaterinburg, Russia, The 5th Euro-Asian Economic Youth Forum on "Dialogue of Civilizations: Green Economy": Dynamic Optimization in Models of Economic Growth (Mathematical Modeling of Economic Processes)

# Stefan Thurner

- Mexico City, Mexico, CEMLA Seminar on "Network Analysis and Financial Stability Issues": Elimination of systemic risk by a systemic risk tax
- Amsterdam, The Netherlands, "21st Annual Risk Minds International": Controlling Systemic Risk in Financial Networks: Using Network Metrics of the Interbank Liability
- Vienna, Austria, "ICT Trends 2020 Big Data": Big Data for understanding the homo sapiens and its society
- Brussels, Belgium, "Global Systems Science Meeting": EU commission directorate general market
- Rio de Janeiro, Brazil, "Econofis '14": Elimination of systemic risk by a systemic risk tax
- London, United Kingdom, "CRISIS SAB meeting": Systemic Risk and Resolution Schemes
- Coventry, United Kingdom, ESF Exploratory Workshop on "Maths Meets Myths 2014": Quantification of human collective behaviour experiments in virtual game space
- Lucca, Italy, ECCS '14 Satellite meeting on "Dynamical Structures in Complex Systems: an information theoretic perspective (DySCS)": Information theory for complex systems: what is the entropy?
- Ghent, Belgium, CSI-ABM Summer School: Agent-based Modelling in Economics

- Ljubljana, Slovenia, Summersolstice 2014 International Conference on "Discrete Models of Complex Systems": Entropies for Complex Systems"
- Santa Fe, USA, "Statistical Mechanics Foundations of Complexity Where Do We Stand?": Statistical Mechanics Foundations of Complexity – Where Do We Stand?
- Brescia, Italy, "ECMS 2014 European Conference on Modelling and Simulation": Preventing collapse of financial networks through systemic risk taxes answers from agent based models
- Brussels, Belgium, STOA Workshop on "New Learning and Teaching Technology options": Knowledge Networking
- Coventry, United Kingdom, "MECO 39 Conference of the Middle European Cooperation in Statistical Physics": Entropy for complex systems
- Jena, Germany, "GSBC EIC The Economics of Innovative Change": Debt Rank-transparency: Controlling systemic risk in financial networks
- Oxford, United Kingdom, "5th CRISIS Workshop": Default models and resolution plans

## **Editorships**

#### Sergey Aseev

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

#### Yuri Ermoliev

Co-editor, Integrated Management, Security and Robustness Book

#### Brian Fath

- Editor-in-Chief, Ecological Modelling Journal
- Section Editor, Global Change and Climate, Encyclopedia of Global Environmental Pollution

### Matthias Jonas

• Editor, Uncertainties in Greenhouse Gas Inventories: Expanding Our Perspective Book

### Tapio Palokangas

• Associate Editor, Economics: Open-Access Open-Assessment Journal

### 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

# Alexander Tarasyev

- Member, Editorial Board, National Organizing Committee and Proceedings of the International Conference dedicated to the 90th Anniversary of Academician N.N. Krasovskii "Systems Dynamics and Control Processes (SDCP2014)," Ekaterinburg, Russia
- Technical Associate Editor, International Federation of Automatic Control (IFAC) International Program Committee for the 19th World Congress of the International Federation of Automatic Control, Cape Town, South Africa, 24-29 August 2014

### Stefan Thurner

- Associate Editor, Journal Entropy
- Associate Editor, Journal Advances in Complex Systems, World Scientific
- Associate Editor, Journal Physica A
- Member and Advisory, Editorial Board, Springer Complexity Program
- Member, Editorial Board, Frontiers in Fractal Physiology Journal
- Member, Editorial Board, Condensed Matter Physics 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 (IFAC)

### Alexey Davydov

• Member, Editorial Board, Journal of Dynamical and Control Systems

- Member, Editorial Board, Izvestia: Mathematics
- Co-Chair, Organizing Committee, International Conference on Differential Equations and Dynamical Systems, Suzdal, Russia
- Member, Council of Mathematical section of Russian Academy of Sciences

#### Yuri Ermoliev

- Acting Member, National Academy of Sciences, Ukraine
- Member, Committee for Systems Analysis, National Academy of Sciences, Ukraine
- Member, Editorial Board, Journal of Cybernetics and Systems Analysis

### 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 (CEQ)
- Vice-Chair, Scientific Advisory Committee, 8th European Conference on Ecological Modelling. Marrakech, Morocco
- 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

### Peter Havlik

- Member, Scientific Advisory Board, The International Center for Advanced and Comparative EU-Russia (NIS) Research, ICEUR
- Member, Commission on the Black Sea
- Member, Advisory Board, University of Applied Sciences BFI Vienna
- Member, Academic Council, Association "Centre for Research into Economic and Sociocultural Upward Enhancement of CIS Countries, Central and Eastern Europe" (RESCUE)

#### Leena Ilmola

Member, International Risk Governance Council (IRGC) Protocol for Emerging Risk Governance Group

#### Alexander Tarasyev

- Vice-Chair, Technical Committee on Optimal Control (TC 2.4) of the International Federation of Automatic Control (IFAC)
- Chair, Technical Committee on Optimal Control (TC 2.4) of the International Federation of Automatic Control (IFAC)
- Member, Technical Committee on Control Design (TC 2.1) of the International Federation of Automatic Control (IFAC)

### Stefan Thurner

- Member, European Conference on Complex Systems (ECCS) Steering Committee
- Representative, Management Committee of the Republic of Austria to the COST Project PEERS