

Final Program of the IIASA Symposium on  
**“Applications of Dynamic Systems to Economic  
Growth with Environment”**

November 7-8, 2008

Gvishiani Room – IIASA, Laxenburg

**Friday, November 7**

**09:00 – 09:30**      **Registration**

**09:30 – 09:40**      **Welcome speech on behalf of IIASA**  
by Arkady Kryazhimskiy – Leader of DYN Program

**09:40 – 09:45**      **Start of symposium** – Alexander Tarasyev

**SESSION I**

***Modeling growth processes I***

*Chairperson: Alexander Tarasyev*

**09:45 – 10:20**      **Sabine Pickenhain:** *On Overtaking Optimal Solutions of  
Infinite Horizon Optimal Control Problems*

**10:20 – 10:55**      **Arkady Kryazhimskiy:** *Equilibrium Growth Dynamics in a  
Market Environment*

**10:55 – 11:25**      **Coffee break**

**SESSION II**

***Modeling growth processes II***

*Chairperson: Sergei Aseev*

**11:25 – 12:00**      **Helmut Maurer, Laurenz Goellmann and Daniela Kern:**  
*Optimal Control Problems with State and Control Delays  
and Applications to Growth Processes*

**12:00 – 12:35**      **Andrey Krasovskii and Alexander Tarasyev:** *Modeling  
Optimal Trajectories of Economic Growth under  
Exhausting Energy Resources*

**12:35 – 14:00**      **Tray lunch at IIASA**

### **SESSION III**

#### ***Modeling growth processes III***

*Chairperson: Helmut Maurer*

**14:00 – 14:35**

Andrey Krasovskii and **Alexander Tarasyev**: *High Order Precision Estimates in Algorithms for Solving Problems of Economic Growth*

**14:35 – 15:10**

**Tapio Palokangas**: *International Emission Policy with Lobbying and Technological Change*

**15:10 – 15:40**

**Coffee break**

### **SESSION IV**

#### ***Driving forces of technological change***

*Chairperson: Arkady Kryazhimskiy*

**15:40 - 16:15**

Davide Dragone, **Luca Lambertini** and Arsen Palestini: *A Dynamic Model of Oligopoly with Capital Accumulation and Pollution Externalities*

**16:15 – 16:50**

**Vladimir Veliov**: *Capital Growth in an endogenously changing environment*

**16:50 – 17:00**

**Short break**

**17:00 – 17:35**

**Chihiro Watanabe**: *Open Innovation in a Post-oil Society*

**19:00 – 22:00**

**Dinner at the Gallo Rosso Restaurant in Laxenburg**

## **Saturday, November 8**

### **SESSION V**

#### ***Natural resources and economic growth I***

*Chairperson: Luca Lambertini*

**09:45 – 10:20**

**Denis Pivovarchuk**: *Consistency between Long-Term Target and Short-Term Policy*

**10:20 – 10:55**

**Paul Raschky**: *Natural Hazards, Growth and Risk-Transfer: An Empirical Comparison between Risk-Transfer-Mechanisms in Europe and the USA*

**10:55 – 11:25**

**Coffee break**

### **SESSION VI**

#### ***Natural resources and economic growth II***

*Chairperson: Jesus Crespo-Cuaresma*

**11:25 – 12:00**

**Sabine Fuss**, Michael Obersteiner, Benjamin Ortiz, Denis Pivovarchuk and Jana Szolgayova: *A Controlled Model of the Development of Transport Infrastructure*

**12:00 – 12:35**

**Ulla Lehmijoki** and Elena Rovenskaya: *Environmental Mortality and Long-Run Growth*

**12:35 – 14:00**      **Lunch at the Laxenburgerhof Restaurant**

**SESSION VII**

***Global warming and growth***

*Chairperson: Tapio Palokangas*

**14:00 – 14:35**

Alfred Greiner and **Willi Semmler**: *Economic Growth and Global Warming: A Model of Multiple Equilibria and Thresholds*

**14:35 – 15:10**

Maria A. Cunha-e-Sa, **Alexandra Leitao** and Ana Balcao Reis: *Growth Innovation and Environmental Policy: Clean vs. Dirty Technical Change*

**15:10 – 15:40**

**Coffee break**

**SESSION VIII**

***Environmental policy and growth***

*Chairperson: Chihiro Watanabe*

**15:40 – 16:15**

**Serguei Kaniovski**: *Probabilistic Okun's Law*

**16:15 – 16:30**

***Conclusions***

*Chairperson: Tapio Palokangas*

**16:30**

**End of symposium**