# Eleventh International ISDG Workshop Warsaw, July 13-15, 2017 Program

# Workshop is held at

**Institute of Mathematics, Polish Academy of Sciences** 

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### Thursday, July 13

8:00 – 8:45 Registration

8:45 – 9:00 Welcome Address

9:00 – 10:00 Invited Talk 1. Chair: A. Jaśkiewicz

The Large Space of Information Structure

J. Renault

10:00 - 10:30 Break

10:30 – 12:30 Contributed Sessions

#### TA1 Dynamic Games in Environmental and Resource Economics I, Chair: F. Wagener

Abatement Investment by a Monopoly with a Stock Pollutant

G. Martín-Herrán, S. Rubio

Sustainability of Social Optima and Nash Equilibria in a Differential Game of Resource Extraction

F. A. M. Al-hag, A. Wiszniewska-Matyszkiel

Verification and Refinement of Two Species Fish Wars Model

O. Górniewicz, A. Wiszniewska-Matyszkiel

Stable Partial Cooperation In Managing Ecological Systems with Tipping Points

**F. Wagener**, A. de Zeeuw

#### TA2 Dynamic Games Theory I, Chair: L. Petrosyan

On Differential Games with Random Time Horizon and a Discrete Structure of the Probability Distribution

E. Gromova, A. Malakhova

The Recursive Bargaining Solution for NTU Differential Games

S. Hoof

Strongly Time-Consistent Solutions in Cooperative Differential Games with Infinite Duration

L. Petrosyan

12:30 - 14:00 Lunch

14:00 – 16:00 Contributed Sessions

#### TB1 Dynamic Games in Management Science and Economics I, Chair: P. De Giovanni

Evolution of Customers' Quality Expectations: Who Tends to Be the Satisfied in the Long Run? **G. E. Fruchter**, T. Reutterer

Planned Opaqueness in Securitization

T. Sogo, K. Kawai

Time-Consistent Equilibria in Cooperative Advertising in Supply Chain Management L. Lu, J. Marín-Solano, J. Navas

Supply Chain Coordination with Dynamic Sharing Parameters

P. De Giovanni

#### TB2 Stochastic Games, Chair: Ł. Stettner

Node-Consistent Shapley Value for Games Played over Event Trees with Random Terminal Time

E. M. Parilina, G. Zaccour

Markov Perfect Equilibria in OLG Models with Altruizm with Paternalistic and Nonpaternalistic Features

Ł. Balbus

Existence of Nash Equilibria in Stochastic Games with Risk Sensitive Agents

H. Asienkiewicz, Ł. Balbus

Markov Perfect Equilibria in Dynamic Decision Model with Quasi-Hyperbolic Discounting Ł. Balbus, **A. Jaśkiewicz**, A.S. Nowak

16:00 – 16:30 Break

16:30 – 17:30 Invited Talk 2. Chair: K. Szajowski

Dynamic Network Formation Models with Strategic Interactions

A. Rusinowska

19:00 Welcome Reception

Friday, July 14

#### 9:00 – 10:30 Contributed Sessions

# FA1 Dynamic Games in Environmental and Resource Economics II, Chair: G. Martín-Herrán

A Common Property Resource Dynamic Game with Stock Dependent Utilities and Asymmetric Players

A. Castaer, J. Marin-Solano, C. Ribas

Stackelberg Games of Water Extraction

A. Jean-Marie, M. Tidball

On Spatial Effects in Cooperative and Non-Cooperative Transboundary Pollution Dynamic Games

J. De Frutos, G. Martín-Herrán

#### FA2: Stopping Games, Chair: E. Z. Ferenstein

Zero-Sum Discounted Markov Games with Impulse Controls

A. Basu, Ł. Stettner

A Multilateral Stopping Model

K. Szajowski

Multi-Person Stopping Games with Priorities and Optimal Multi-Stopping Time Problems

E. Z. Ferenstein

10:30 - 11:00 Break

11:00 – 13:00 Contributed Sessions

#### FB1: Applications of Dynamic Games, Chair: V.L. Turova

A Stackelberg Duopoly Model with Sticky Prices and Myopic Follower

K. Kańska, A. Wiszniewska-Matyszkiel

Dynamic Games with Incomplete Information Applied to Optimization of Military Radio Networks – Jamming Avoidance

A. Wiszniewska-Matyszkiel, P. Kaniewski, R. Matyszkiel

#### FB2 Dynamic Games Theory I, Chair: V.V. Mazalov

Numerical Method Solving Time-Optimal Differential Games with Life Line **N.V. Munts**, S.S. Kumkov

Differential Games with Incomplete Information and with Revealing on an Absorbing Target Sets

X. Wu

Lion-and-Man Game and Fixed Points

O. Yufereva

Discrete-Time Dynamic Potential Games

V.V. Mazalov, A. Rettieva

13:00 – 14:00 Lunch

Afternoon: Excursion and Cultural Event

19:30 Workshop Dinner

(or earlier in case of heavy rain)

## Saturday, July 15

#### 8:30 – 10:30 Contributed Sessions

#### SA1: Dynamic Games in Management Science and Economics II, Chair: F. Lamantia

Depreciation Rate and Market Potential in the Lanchester Model

D. Machowska

Cooperative vs. Non-Cooperative Approach to Differential R&D Game: Endogenous Uncertainty as the New Market Inefficiency Source

A. Bondarev

Time Consistent Risk Management in a Defined Benefit Stochastic Pension Fund R. Josa-Fombellida, **J. Navas** 

The Dynamic Effects of Fiscal Reforms and Tax Competition on Tax Compliance and Migration: an Evolutionary Analysis

F. Lamantia, M. Pezzino

#### SA2 Evolutionary and Population Games, Chair: V. Kolokolsov

Stability in Evolutionary Games and Population Games

D.E.A. Fryer

Stability in Replicator Dynamics Derived from Transferable Utility Games **A. Casajus**, M. Kramm, H. Wiese

On a Large Population Game of Associative Pairing with Continuous Time **D.M. Ramsey** 

Mean-Field and Evolutionary Game Modeling on Networks V.N. Kolokolsov, **S. Katsikas** 

10:30 - 11:00 Break

11:00 – 13:00 Contributed Sessions

SB1 Dynamic Games Theory, Chair: S. Plaskacz

On General Limit Value Function

D. Khlopin

Network Partitioning as Cooperative Game

K.E. Avrachenkov, A.Yu. Kondratev, V.V. Mazalov

McKean -Vlasov SPDEs for the Mean Field Games with Multidimensional Common Noise V.N. Kolokoltsov, M. Troeva

Dynamical Systems Associated to the -Core in the Repeated Prisoner's Dilemma S. Plaskacz, J. Zwierzchowska

#### SB2 Dynamic Games in Environmental and Resource Economics III, Chair: M. Breton

Enforcing Regulatory Standards In Stock Pollution Problems

C. Arguedas, F. Cabo and G. Martín-Herrán

Linear Quadratic Game of Exploitation of Common Renewable Resources with Inherent Constraints

R. Singh, A. Wiszniewska-Matyszkiel

Adaptation in the Transboundary Pollution Dynamic Game

B. Vardar, G. Zaccour

The Impact of Adaptation on the Stability of International Environmental Agreements M. Breton, L. Sbragia

13:00 – 13:15 Closing Session

13:15 – 14:30 Lunch