

The Sixth International Conference
Game Theory and Management

27-29 June, 2012
St. Petersburg, Russia

Organized by
St. Petersburg University
Graduate School of Management,
Faculty of Applied Mathematics & Control Processes
and
The International Society of Dynamic Games
(Russian Chapter)

The Conference is being held at
Graduate School of Management, St. Petersburg University
Volkhovskiy per., 3, St. Petersburg, Russia

Sponsored by
Graduate School of Management
and
Faculty of Applied Mathematics & Control Processes
St. Petersburg University

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Program

Graduate School of Management, St. Petersburg University
Volkhovsky per., 3, St. Petersburg, Russia

Wednesday, June 27		
08:45 – 09:30	REGISTRATION	3 rd floor
09:00 – 09:30	COFFEE	Room 307
09:30 – 09:45	WELCOME ADDRESS	Room 309
09:50 – 10:55	PLENARY TALK (1)	Room 309
10:55 – 12:00	PLENARY TALK (2)	Room 309
12:00 – 14:00	LUNCH	University Center
14:00 – 16:30	PARALLEL SESSIONS (W1)	Room 204, 209, 211
16:30 – 16:50	COFFEE BREAK	Room 204, 209, 211
16:50 – 19:00	PARALLEL SESSIONS (W2)	Room 204, 209, 211
19:00 – 22:00	WELCOME PARTY	Room 309
Thursday, June 28		
09:30 – 10:00	COFFEE	Room 307
10:00 – 11:00	PLENARY TALK (3)	Room 309
11:05 – 12:10	PLENARY TALK (4)	Room 309
12:10 – 14:00	LUNCH	University Center
14:00 – 16:30	PARALLEL SESSIONS (T1)	Room 309, 209
16:30 – 16:50	COFFEE BREAK	Room 307
16:50 – 19:00	PARALLEL SESSIONS (T2)	Room 309, 209
Friday, June 29		
09:30 – 10:00	COFFEE	Room 307
10:00 – 11:00	PLENARY TALK (5)	Room 309
11:10 – 12:20	PARALLEL SESSIONS (F1)	Room 309, 209
12:20 – 14:00	LUNCH	University Center
14:00 – 16:30	PARALLEL SESSIONS (F2)	Room 309, 209, 211
16:30 – 17:00	COFFEE BREAK	Room 307
17:00 – 17:30	CLOSING SESSION	Room 309
19:00 – 22:00	CONFERENCE BANQUET	Restaurant

Wednesday, June 27

09:50 – 10:55 **PLENARY 1. GRAND HALL, room 309**

Chair – Leon Petrosyan

Josef Hofbauer, Vienna Graduate School of Economics, University Vienna (Austria)

Deterministic Evolutionary Game Dynamics

10:55 – 12:00 **PLENARY 2. GRAND HALL, room 309**

Chair – Elena Yanovskaya

Sylvain Sorin, University Pierre et Marie Curie – Paris (France)

Recent advances in zero-sum dynamic games

12:00 – 14:00 LUNCH¹

14:00 – 16:30 **W1: PARALLEL SESSIONS**

LSI: room 209

Location, Search and Incentives

Chair – Ryusuke Hohzaki

14:00 – 14:25 **Egidio D'Amato**, Elia Daniele, Lina Mallozzi and Giovanni Petrone

Queue penalization effect in a location-allocation problem

14:25 – 14:50 **Ryusuke Hohzaki**

A Smuggling Game Taking Account of Incomplete Information about a Smuggler

14:50 – 15:15 **Sergey Kuniavsky**

Search with Store Chains

15:15 – 15:40 **Anna Sergeeva** and **Vladimir Bure**

The game-theoretical model of the service choice with big losses

15:40 – 16:05 **Marina Dolmatova**

Capacity market impact on investment incentives

16:05 – 16:30 **Shchiptsova Anna**

¹ Lunch will be held at the University Center's restaurant, Birzhevaya liniya, 6

Location-price game in the market of two products

ABC: room 211

Arbitration, Barter and Corruption

Chair – Vladimir Mazalov

14:00 – 14:25 **Julia Tokareva** and **Vladimir Mazalov**

Game-theoretic tender's model and reputation of arbitrators

14:25 – 14:50 **Alexander Mentcher**

Optimal Strategies in the Game with Arbitrator

14:50 – 15:15 **Aleksei Kondratev** and **Vladimir Mazalov**

Bargaining about Meeting Time

15:15 – 15:40 **Suriya Kumacheva**

The Strategy of Tax Control in Conditions of Possible Mistakes and Corruption of Inspectors

15:40 – 16:05 **Anna Ivashko**

Urn Scheme for a Buying-Selling Problem

16:05 – 16:30 **Andrey Chernushkin**, **Gennady Ougolnitsky** and
Anatoly Usov

Game theoretic modeling of corruption in hierarchical dynamic control systems

DGA: room 204

Differential Games and Applications

Chair – David Yeung

14:00 – 14:25 **David Yeung**

Subgame Consistent Cooperative Solutions in Stochastic Differential Games with Asynchronous Horizons and Uncertain Types of Players

14:25 – 14:50 **Ekaterina Shevkoplyas** and **Georges Zaccour**

On the Conditions for the Stability of Cooperative Agreement in Linear-Quadratic Differential Games

14:50 – 15:15 **Anatolii Kleimenov**

A Non-antagonistic Differential Two-Person Game with Dynamic Disturbances

15:15 – 15:40 **Sergey Ganebny**, **Sergey Kumkov**, **Stephane Le Menec**
and **Valerii Patsko**

Optimal Strategies in a Differential Game with Two Pursuers and One Evader

15:40 – 16:05 **Igor Shevchenko**

Guaranteed strategies for alternative pursuit games

16:05 – 16:30 **Sergey Kostyunin**

On a nonrenewable resource extraction game played by asymmetric firms

16:30 – 16:50 COFFEE BREAK, room 209, 211, 204

16:50 – 19:00 **W2: PARALLEL SESSIONS**

CGA: room 209

Cooperative Games and Applications

Chair – Sergei Pechersky

16:50 – 17:15 **Elena Yanovskaya**

The lexicographic prekernel

17:15 – 17:40 **Javier Arin and Ilya Katsev**

The SD-prenucleolus for TU games

17:40 – 18:05 **Natalia Naumova**

Solidary Solutions to Games with Restricted Cooperation

18:05 – 18:30 **Sergei Pechersky**

The Shapley value, the convex games, and the Steiner point of the convex sets

18:30 – 18:55 **Andrey Lyapunov**

The core and the minimal core in the non-atomic games

ABB: room 211

Auctions, Biddings and Bargaining

Chair – Victor Domansky

16:50 – 17:15 **Estrella Alonso, Joaquín Sánchez-Soriano and Juan Tejada**

A parametric family of three ranked objects auctions: equilibria and associated risk

17:15 – 17:40 **Nosalskaya Tatyana**

Sequential Bargaining Scheme in the Assets Sharing Problem

17:40 – 18:05 **Andrey Lukyanenko**

Modeling cloud computing auctions for idle capacity

18:05 – 18:30 **Victoria Kreps** and Victor Domansky
Bidding games with four sequential values of share price

18:30 – 18:55 **Marina Sandomirskaia**
Game-Theoretic Approach to Insider Trading Modeling: One-Stage Bidding with non-zero Bid-Ask Spread

PIC: room 204

Performance, Signals and Competition

Chair – Sergei Izmalkov

16:50 – 17:15 Filippo Balestrieri and **Sergei Izmalkov**
Informed seller in a Hotelling market

17:15 – 17:40 Marina Agranov, **Victor Archavski**, Chen Zhao
Advertising Match Signals Quality

17:40 – 18:05 **Lubov Schukina**
Evaluation of Management Participating in Mergers Performance

18:05 – 18:30 **Jose Vila**, Iván Arribas, Penélope Hernández and Amparo Urbano
Are social and entrepreneurial attitudes compatible? A behavioral and self-perceptual analysis

18:30 – 18:55 **Jennifer Cutler** and Richard Staelin
The Advantages of Underestimating the Competition

19:00 – 22:00 WELCOME PARTY²

Thursday, June 28

10:00 – 11:00 **PLENARY 3. GRAND HALL, room 309**
Chair – Nikolay Zenkevich

Ehud Kalai, Kellogg School of Management, Northwestern University (USA)

Cooperation in Strategic Games revised

11:05 – 12:05 **PLENARY 4. GRAND HALL, room 309**
Chair – Vladimir Mazalov

Michele Breton, HEC Montreal (Canada)

² Welcome party will be held at the Grand Hall, room 309, 3^d floor

Borrowing and lending: two sides of the financing game

12:10 – 14:00 LUNCH

14:00 – 16:30 **T1: PARALLEL SESSIONS**

GTMA-1: room 309

Game Theory and Management Applications - 1

Chair – Dmitry Novikov

14:00 – 14:25 **Elisenda Molina**, Sjur Flam and **Juan Tejada**
On Bilateral Barter and Market Equilibrium

14:25 – 14:50 **Alexander Vasin**, Polina Kartunova and **Gerhard-Wilhelm Weber**
Models of Capacity and Electricity Market

14:50 – 15:15 **Javier de Frutos** and **Guiomar Martin-Herran**
*Does Flexibility Facilitate Sustainability of Cooperation over Time?
A Case Study from Environmental Economics*

15:15 – 15:40 **Atanu Chatterjee**
Game-theoretic formulation of complex systems

15:40 – 16:05 Enrique González-Arangüena, **Anna Khmel'nitskaya**,
Conrado Manuel and Mónica Del Pozo
A social capital index

16:05 – 16:30 **Vladimir Breer** and **Dmitry Novikov**
Control in Game Theoretical Model of Herd Behavior

MAA: room 209

Models, Algorithms and Applications

Chair – Ludmila Novac

14:00 – 14:25 **Mikhail Lutsenko** and Dmitry Cherkassov
Minimax Confidence Intervals for Medium-Sized Samples

14:25 – 14:50 **Tatiana Abramovskaya**
The problem of the realizability of the function with properties of the
Golovach function

14:50 – 15:15 **Ludmila Novac**
*On an algorithm for determination of Nash equilibria in the
informational extended bimatrix games*

15:15 – 15:40 **Yuriy Sokolov** and Nikolay Zenkevich
Game-theoretic model of project execution control

15:40 – 16:05 **Xenia Grigorieva**

Coalitional Model of Decision-Making over the Set of Projects with Different Preferences of Players

16:05 – 16:30 **Michael Lutsenko and Natalia Shadrintseva**

The Shapley and Banzaf Values for different courses of study

16:30 – 16:50 COFFEE BREAK, room 307

16:50 – 19:00 **T3: PARALLEL SESSIONS**

GTMA-2: room 309

Game Theory and Management Applications - 2

Chair – Sergei Schreider

16:50 – 17:15 **Suresh Deman**

Game of Land Management

17:15 – 17:40 **Dmitri Nizovtsev** and Alexandre Skiba

Game-theoretic Analysis of Strategic Export Pricing in the Presence of Anti-dumping Practices

17:40 – 18:05 **Tasos Dosis**, Abhinay Muthoo and Motty Perry

Strategic Experimentation in R&D Races

18:05 – 18:30 **Victor Zakharov** and **Alexander Shchegryaev**

Stability in cooperative routing games

18:30 – 18:55 **Sergei Schreider**, Vladimir Gurvich and Jonathan Plummer

On fair income allocation in acyclic network systems

CCE: room 209

Communication, Competition and Evolution

Chair – Anna Khmelnitskaya

16:50 – 17:15 Rene van Den Brink, **Anna Khmelnitskaya** and Gerard van der Laan

Owen-type value for games with two-level communication structures

17:15 – 17:40 55 **Elena Gubar**, **Ekaterina Zhitkova**, **Lidia Fotina** and **Irina Nikitina**

Extended SIR Model: Economic and Social Aspects

17:40 – 18:05 **Javier Arin** and Jon Benito

Lorenz and lexicographic maximal allocations for bankruptcy problems

18:05 – 18:30 **Fedor Sandomirskii**

Repeated incomplete information games with countable state space

Friday, June 29

10:00 – 11:00 **PLENARY 5. GRAND HALL, room 309**

Chair – Leon Petrosyan

Sergey Aseev, Steklov Mathematical Institute RAS, Moscow
(Russia)

*The Pontryagin maximum principle for infinite-horizon problems
and its applications in economics*

11:10 – 12:30 **W1: PARALLEL SESSIONS**

ENR: room 309

Environment and Natural Resources

Chair – Anna Rettieva

11:10-11:30 **Julia Chuyko**

Selfish Base Station Selection Problem

11:30-11:50 **Anna Rettieva**

*Discrete-time bioresource management problem with asymmetric
players*

11:50-12:10 **Sergei Kulivets**

*An example of using game-theoretic models and cognitive maps to
analyze a conflict of interests between Russia and Norway in Barents
Sea*

MCMA: room 209

Multi-Criteria and Multi-Activity Contests

Chair – Denis Kuzyutin

11:05 – 11:30 **Maria Nikitina** and Lidia Zolotukhina

*Optimal investment strategy to minimize the ruin probability of an
insurance company*

11:30 – 11:55 **Denis Kuzyutin** and **Maria Nikitina**

On the A-equilibria properties in n-person multicriteria games

11:55 – 12:20 **Maria Arbatskaya** and Hugo Mialon

Entry in Multi-Activity Contests

12:20 – 14:00 LUNCH

14:00 – 16:30 **W2: PARALLEL SESSIONS**

GTMA-3: room 309

Game Theory and Management Applications - 3

Chair – Georges Zaccour

14:00 – 14:25 **Reinoud Joosten** and Robin Meijboom
Stochastic game with endogenous transitions

14:25 – 14:50 **Mikhail Goubko**
Model of supply network formation management

14:50 – 15:15 **Pierre Von Mouche**
Analyzing the Folk Theorem for Linked Repeated Games

15:15 – 15:40 **David Ellison** and **Michel Rudnianski**
Playability properties in games of deterrence and evolution in the Replicator Dynamics

15:40 – 16:05 **Margarita Gladkova**
Model of mobile service quality choice under competition: Russian market

16:05 – 16:30 Peter Kort, Sihem Taboubi and **Georges Zaccour**
Strategic Pricing of Complementary Products in a Marketing Channel?

NGA: room 209

Networking Games and Applications

Chair – Elena Parilina

14:00 – 14:25 Alexander Chkhartishvili and **Denis Fedyanin**
On a model of information control in active network structure

14:25 – 14:50 Leon Petrosyan and **Artem Sedakov**
Multistage and Repeated Network Games

14:50 – 15:15 **Elena Parilina** and **Artem Sedakov**
Cooperative Agreements in ATM Network Management

15:15 – 15:40 **Nikolay Bazhenkov**
Reflexive Behavior in Topology Control for Ad Hoc Networks

15:40 – 16:05 **Anna Belitskaia**
Network Game of Pollution Cost Reduction

16:05 – 16:30 **Mikhail Karpov**
N-person transportation game with different cost functions

PCC: room 211
Productivity, Competition and Collaboration

Chair – Pavel Konyukhonskiy

14:00 – 14:25 **Pavel Konyukhonskiy** and **Alexandra Malova**
Game-theoretic models of collaboration among economic agents

14:25 – 14:50 Polina Provotorova, Alexandra Zinchenko and
Dmitriy Usachev
Sufficient nonemptiness conditions for core of TU-game

14:50 – 15:15 **Igor Bykadorov**, Sergey Kokovin and Evgeny
Zhelobodko
Endogenous productivity under monopolistic competition

15:40 – 16:05 **Vladimir Matveenko**
*Differential Bargaining Games as Microfoundations for Production
Function*

16:30 – 17:00 COFFEE BREAK, room 307

17:00 – 17:30 **CLOSING SESSION: GRAND HALL, room 309**
Chair – Leon Petrosyan

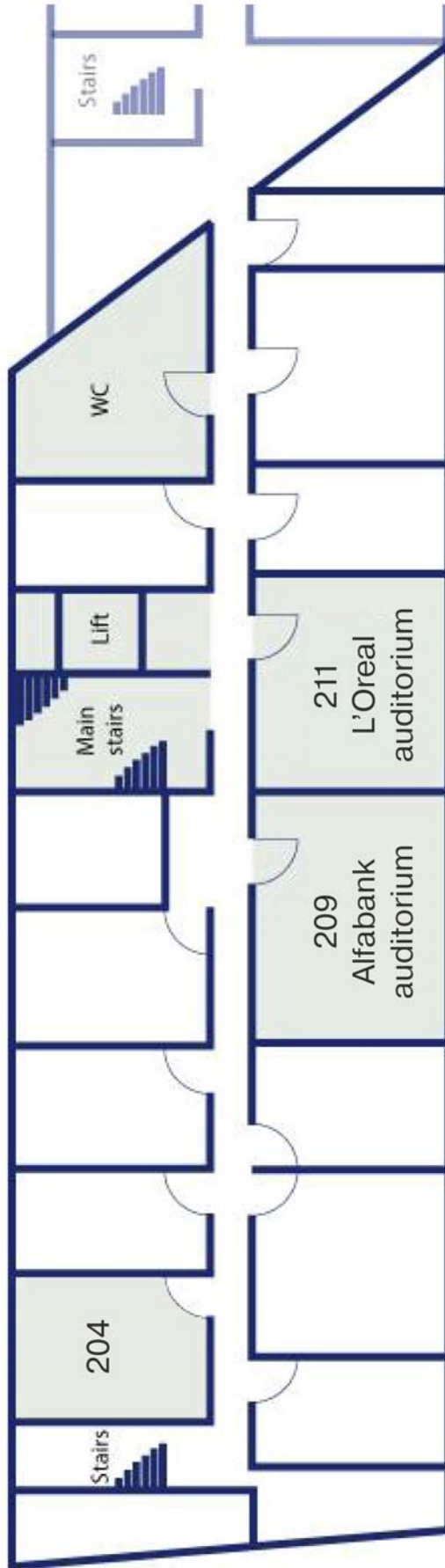
19:00 – 22:00 **CONFERENCE BANQUET³**

³Conference Banquet will be held at Restaurant in The Palace of Grand Duke Vladimir; Palace embankment, 26

MAP



Second floor



Third floor

