

21st International Symposium on Dynamic Games and Applications

Conference Program

July 20, 2026

08:30 Registration

09:30 Welcome address

Plenary 1 Plenary 1

Location: Room

Chair: Wagener, Florian, Universiteit van Amsterdam

09:45 Half-a-Century Evolution of Dynamic Game Theory: A Personal Retrospective
Tamer Basar

10:45 Coffee Break

Tutorial Tutorial

Location: Room 1

Chair: Parilina, Elena, Saint Petersburg State University

11:15 Machine learning for mean field games and its extensions
Gokce Dayanikli

12:45 Lunch (Meeting of Editorial Board of DGAA)

Plenary 2 Plenary 2

Location: Room 1

Chair: Staňková, Kateřina, Delft University of Technology

14:15 Evolution of Cancer Therapy Resistance as a Multifactorial Dynamic Process
Andriy Marusyk

G. Photo Group Photo

Location: Room 1

Chair: Wagener, Florian, Universiteit van Amsterdam

GA ISDG General Assembly of ISDG (all participants are welcome)

Location: Room 1

Chair: Wagener, Florian, Universiteit van Amsterdam

Cok Symposium Cocktail

Location: Room

Chair: Wagener, Florian, Universiteit van Amsterdam

July 21, 2026

MFG 1 Mean Field Games 1

Location: Room

Chair: Malhamé, Roland, Polytechnique Montréal

08:30 Solving First-Order Time-Dependent Mean Field Games via Monotone Operator Theory

Melih Ucer, Diogo Gomes

08:55 Maximum Mean Discrepancy Imitation Learning in Mean-Field Games

Can Deha Kariksiz

09:20 Mean Field Stochastic Games with Restless Bandits

Konstantin Avrachenkov, Riya Sultana, Kousik Das, Veeraruna Kavitha

09:45 Nash equilibria in LQ continuous-time aggregative games with delayed sampled empirical mean observations

Roland Malhamé, Farid Rajabali

EG 1 Evolutionary Games 1

Location: Room 1

Chair: Křivan, Vlastimil, Jihočeská univerzita v Českých Budějovicích

08:30 The role of structure and mobility in the evolution of cooperation

Diogo Pires, Igor Erovenko, Mark Broom

08:55 Phase transitions in the Prisoner's Dilemma game on the Barabási-Albert graph with participation cost

Jacek Miękisz, Javad Mohamadichamgavi

09:20 Eco-Evolutionary game dynamics with Three Strategies: how geometric analysis provides insights into stability

Manjot Singh Bedi

09:45 The ideal free distribution in temporally fluctuating environments

Vlastimil Křivan

ERE 1 Environmental and Resource Economic 1

Location: Room 2

Chair: Martin-Herran, Guiomar, Universidad de Valladolid

08:30 What does a dynamic oligopoly maximize? The continuous time Markov case
Juan Pablo Rincon-Zapatero

**08:55 Non-smooth climate change and emergent Nash equilibria in multi-regions
hybrid differential games**
Anton Bondarev, Alfred Greiner

**09:20 Doing greenwashing or certifying true emissions? Two answers to environmental
regulation**
Francisco Cabo, Guiomar Martin-Herran, Lais Ramos

**09:45 Partial cooperation in resource extraction on networks: sharing wealth versus
sharing extraction rights**
Silvia Faggian, Dominika Machowska, Agnieszka Wiszniewska-Matyszek

Operations Management Operations Management

Location: Room 3

Chair: Karaer, Ozgen, Middle East Technical University

**08:30 Sustainability or Deception? The Impact of Greenwashing on Supplier
Investments and Supply Chain Profits**
Ozgen Karaer, Can Baris Cetin, Georges Zaccour

08:55 Influencing Customers, Pricing, and Product Returns
Xiao Huang, Reza Nazari Khanmiri, Georges Zaccour

09:20 The Impact of Competitive Intelligence Services on Online Marketplaces
Mehmet Gumus, Sara Jaber, Mohammad Nikoofal, Taner Bilgic, Arcan Nalca

**09:45 Solving Perishable Inventory Control Problems Using Multi-Agent Reinforcement
Learning**
Taner Bilgic, Anil Turgut

10:10 Break

MFG 2 Mean-Field Games 2

Location: Room

Chair: Moon, Jun, Hanyang University

- 10:40** **Principles and Applications of Learning in Large-Population Games**
Shinkyu Park
- 11:05** **Epidemic Spread Modeling with Social-Distancing and Vaccination via Mean Field Games**
Gokce Dayanikli
- 11:30** **Population-Aware Imitation Learning in Mean-field Games with Common Noise**
Mathieu Lauriere, Gregoire Lambrecht

EG 2 **Evolutionary Games 2**

Location: Room 1

Chair: Broom, Mark, City St. George's, University of London

- 10:40** **Evolution of the payoff matrix: when the nature of the game evolves**

Tamás Varga, Balázs Király, József Garay
- 11:05** **Equilibrium transitions in stochastic evolutionary games with heterogeneous players**
Wojciech Misiak, Jacek Miękisz
- 11:30** **A Hybrid Evolutionary and LLM-Based Approach for Modeling and Optimal Control of Social Media Topics**
Elena Gubar, Vladislav Tainitskiy, Ivan Blekanov
- 11:55** **Eco-evolutionary stability of Batesian mimicry systems**
Alan Scaramangas, Mark Broom

ERE 2 **Environmental and Resource Economic 2**

Location: Room 2

Chair: Breton, Michele, HEC Montréal

- 10:40** **A transboundary pollution dynamic game with industrial allocation**
Javier de Frutos, Víctor Gatón, Guiomar Martin-Herran
- 11:05** **Taxation and Green Innovation in Oligopolistic Markets**
Santiago J. Rubio, Guiomar Martin-Herran
- 11:30** **Changing Reproductive Rates in a Coalitional Great Fish War**
Zane Williams, Ilyass Dahmouni

11:55 **Green Transition under Emission Trading Systems: a Dynamic Game interpretation**

Michele Breton, Pascal François, Amavi Hounlete

Stoc. Games 1 Stochastic Games 1

Location: Room 3

Chair: Etesami, Rasoul, UIUC

10:40 **Decentralized Optimal Equilibrium Learning in Stochastic Games via Single-bit Feedback**

Seref Taha Kiremitci, Ahmed Said Donmez, **Muhammed Sayın**

11:05 **A Lagrangian Framework for Solving Locally Constrained Stochastic Games**

Soham Das, Santiago Paternain, Luiz Chamon, **Ceyhun Eksin**

11:30 **Game-Theoretic Frameworks for Decentralised Multi-Robot Task Allocation**

Hyo-Sang Shin

11:55 **Dynamic Correlated Games: Information Asymmetry, Set-Valued Computation, and Iterative Learning**

Quanyan Zhu

12:20 **Lunch (Meeting of the Executive Board of ISDG)**

LPG 1 Large Population Games 1

Location: Room

Chair: Lauriere, Mathieu, NYU Shanghai

14:00 **Continuum Aumann–Dreze Value and Exit-and-Join Coalition Dynamics in Nonatomic Cooperative Games**

Quanyan Zhu

14:25 **Linear-Quadratic Stochastic Teams and Games under General Partial Information**

Jun Moon

14:50 **Scalable and Independent Learning of Stationary Nash Equilibrium Policies in Large-Scale Markov Games with Independent Chains**

Rasoul Etesami

15:15 **Small Groups, Large Population: Mean field inspired stable partitions**

T Karthik Rajendran, Riya Sultana, Veeraruna Kavitha, Sarath Yasodharan

EG 3 Evolutionary Games 3

Location: Room 1

Chair: Apaloo, Joe, St. Francis Xavier University

14:00 Doublebind therapy for cancer using a model of predator facilitation

Joseph Apaloo, Joel Brown, Lilian Frempomaa Kyei, Ralph Agyei Twum

14:25 Vaccination behavior and the evolution of pathogen virulence

Clément Monaury, Martin Guillemet, Ludovic Mailleret, Virginie Ravigné, **Frédéric Hamelin**

14:50 Multi-agent reinforcement learning through the lens of evolutionary game dynamics

Johann Bauer, Sheldon West, Eduardo Alonso, Mark Broom

15:15 Model-guided dosing in NSCLC

Kailas Honasoge, Eva Molnarova, Katerina Stankova

ERE 3 Environmental and Resource Economic 3

Location: Room 2

Chair: Mazalov, Vladimir, Faculty of Applied Mathematics-Control Processes, Saint-Petersburg State University

14:00 A cooperative approach for emission games with endogenous climate risk

Armando Sacco, Mallozzi Lina

14:25 Altruistic Behavior and Nash Stable Coalition Partitions in International Environmental Agreements

Vladimir Mazalov, Zhou Jiangjing

14:50 Non-smooth harvesting strategies in a differential game with multi-species fisheries.

Guillaume Bataille, Weihua Ruan, Benteng Zou

15:15 Restoration responsibility in a dynamic game of deforestation, production, and pollution accumulation

Fouad EL Ouardighi, giorgio gnecco, Evgeni Khmelnitsky, Marcello Sanguineti

Stoc. Games 2 Stochastic Games 2

Location: Room 3

Chair: Sun, Ping, Qingdao University

14:00 Principled Learning-to-Communicate with Quasi-Classical Information Structures
Kaiqing Zhang

- 14:25** **Feasible payment schemes in finite stochastic games**
Maria Bykova, Elena Parilina
- 14:50** **Costly Endogenous Separation in Repeated Prisoner's Dilemma**
Alejandro Gutiérrez-Mielgo, Segismundo S. Izquierdo, Luis R. Izquierdo
- 15:15** **Regret-minimization evaluation in dynamic games played over event trees with ambiguity**
Ping Sun, Elena Parilina, Georges Zaccour

15:40 **Break**

LPG 2 **Large Population Games 2**

Location: Room
Chair: Leocata, Marta, LUISS

- 16:10** **Maximum Entropy Inverse Reinforcement Learning for Mean-Field Games with Average Reward**
Şevket Kaan Alkır, Naci Saldi, Berkay Anahtarçı, Can Deha Karıksız
- 16:35** **Timely and Scalable Task Offloading in Edge Computing: A Mean-Field Game Approach**
Shubham Aggarwal, Muhammad Aneeq uz Zaman, **Melih Bastopcu**, Sennur Ulukus, Tamer Basar
- 17:00** **Personalized persuasion in the era of AI: The role of various types of human data in LLM-generated arguments**
Olga Zalesskaia, Ilya Sukharev, Dina Rusinova, Arseniy Khlytchiev, Alexander Gubanov, Olga Dymarskaya, Tatiana Kozitsina, Yan Tashe, Ilya Astapenko, Evgeniya Lukinova, Alexander Petrov, Ivan Kozitsin
- 17:25** **A Mean Field Game Approach to Pollution Regulation of Competitive Firms**
Marta Leocata

LG **Learning Games**

Location: Room 1
Chair: Alpcan, Tansu, The University of Melbourne

- 16:10** **Learning in Principal-Agent Interactions**
Subhonmesh Bose, Raj Velicheti, Tamer Basar, John Birge

- 16:35** **A Bayesian Fictitious Play approach to solve Partially Observable Pursuit–evasion games**
Kousik Das, Yezekael Hayel
- 17:00** **Equilibrium Learning in Data-Driven Dynamic Games**
IMAD EL HARRAKI
- 17:25** **Physics-Informed Learning in Dynamic Multiplayer Games**
Tansu Alpcan

ERE 4 Environmental and Resource Economic 4

Location: Room 2
Chair: Tidball, Mabel, INRAe

- 16:10** **Dynamic multimarket oligopoly with downstream water pollution**
Xianlun Ke, **Artem Sedakov**
- 16:35** **Transitioning from a Non-Symbiotic to a Symbiotic Regime: A Renewable Natural Resources Perspective**
Arnaud Dragicevic
- 17:00** **Equilibria in two-stage non-renewable resource extraction game**
Gonul Selin Savaskan, Elena Parilina, Georges Zaccour
- 17:25** **Myopic, farsighted behaviours and conjectural learning. Application to a groundwater exploitation problem**
Mabel Tidball, Alain Jean-Marie

Social Networks Games, Social Networks and Opinion Dynamics

Location: Room 3
Chair: Proskurnikov, Anton, Politecnico di Torino

- 16:10** **Strategic Choice by LLM Agents in a Cournot Duopoly: An Empirical Evaluation of Information Regimes**
DMITRY GUBANOV
- 16:35** **An Evolutionary Game Model of Tax Compliance with Public Opinion and Audit Probability**
Ekaterina Vostrenkova, **Elena Gubar**, Vassili Kolokoltsov
- 17:00** **Direct and Indirect Influence on Likes in Social Networks**
Ivan Kozitsin, Anton Proskurnikov

17:25 **The Wisdom of Crowds as a Strategic Game on Social Networks**
Anton Proskurnikov

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KA **Krasowski Award**

Location: Room
Chair: Zaccour, Georges, GERAD, HEC Montréal

08:30 **Equilibrium Influence and Pricing in Duopoly Competition**
Reza Nazari Khanmiri, Xiao Huang, Georges Zaccour

08:50 **Characterizing the reactive Nash equilibria of repeated additive games**
Franziska Lesigang, Christian Hilbe, Nikoleta E. Glynatsi

09:10 **Clinical Feasibility of Evolutionary Therapy in Metastatic Non-Small Cell Lung Cancer**
Arina Soboleva, Kailas Honasoge, Eva Molnarova, Ties Mulders, Anne-Marie Dingemans, Irene Grossmann, Jafar Rezaei, Katerina Stankova

09:30 **Emotionally Bounded-Rational Agents in Repeated Games: Dual-System Architecture and Simulation Study**
Pavliuchenkov Dmitri, Dmitri Gubanov

09:50 **Hyper Diversity, Species Richness, and Community Structure in ESS and Non-ESS Communities**
Kailas Honasoge, Tania L. S. Vincent, Gordon G. McNickle, Roel Dobbe, Kateřina Staňková, Joel Brown, Joseph Apaloo

EM 1 **Evolutionary Medicine 1**

Location: Room 1
Chair: Bukkuri, Anuraag, Department of Mathematics: City St George's, University of London

08:30 **Modeling karyotype-driven adaptations to metabolic restrictions predict therapeutic response and immunogenicity in cancers**
Vural Tagal, Jackson Cole, Richard Beck, Didem Ilter, Daria Miroshnychenko, Derek Duckett, HyoSook Han, Andriy Marusyk, Gomes Ana P., Noemi Andor

08:55 **Call in the muscle: cachexia and induced wasting as a Nash bargaining solution**
Cameron Haynes, Chris Whelan, Joel Brown

09:20 **Modeling Optimal Timing of Immunotherapy and Chemotherapy to Prevent Resistance and Recurrence in Triple-Negative Breast Cancer**
Mobina Daneshparvar

09:45 **Cancer Hauntology & Biosemiotics: New Perspectives on Cancer Ontology**
Anuraag Bukkuri

DGEM 1 Dynamic Games in Economics and Management 1

Location: Room 2

Chair: Marín-Solano, Jesús, Universitat de Barcelona

08:30 **Dynamic Promotion Planning in Live Streaming Commerce**
Lijue Lu

08:55 **Win-stay, lose-shift strategies drive the sustainable use of commons**
Diogo Pires, Vincenzo Mancuso, Paolo Castagno, Marco Ajmone Marsan

09:20 **Price-Based Demand Response for Renewable-Rich Smart Grids via Stackelberg Markov Games and Learning Approaches**
Siyang Huang, Yifen Mu, Ge Chen

09:45 **Effects of Environmental Awareness in a Common-Pool Resource Game**
Carles Mañó-Cabello, **Jesús Marín-Solano**, Jorge Navas

COMP 1 Computation of Equilibria 1

Location: Room 3

Chair: Lina, Mallozzi, Università di Napoli Federico II

08:30 **Examining opinion formation of large language models through the lens of Argument-based communication theory**
Khlytchiev Arseniy, Ivan Kozitsin

08:55 **Multiscale Exit-and-Join Dynamics for Coalition Formation: Emergence of Order from Coupled Strategic and Tactical Interactions**
Quanyan Zhu

09:20 **Softened bilevel optimization problems**
Guillaume Carlier, **Mallozzi Lina**

09:45 **Implementation of Motion Camouflage Pursuit Strategy via Differentiable Programming**
Ivan Matychyn, Viktoriia Onyshchenko

10:10 Break

DIFF 1 Differential Games 1

Location: Room

Chair: Petrosyan, Leon, St.Petersburg State University

10:40 Cooperative Solutions in a Pollution Control Model with Dependent Equipment Failures

Xiyue Huang, Anna Tur

11:05 Differential games with age-structured populations: a general framework for closed-loop epsilon-Nash equilibria

Dominika Machowska, Andrzej Nowakowski, Agnieszka Wiszniewska-Matyszkiewicz, Stefan Wrzaczek, Michael Kuhn

11:30 Two-0n-One Pursuit and Evasion

Meir Pachter

11:55 On Stability of Cooperative Communication Networks in n-person Differential Games

Leon Petrosyan

EM 2 Evolutionary Medicine 2

Location: Room 1

Chair: Brown, Joel, Moffitt Cancer Center

10:40 Resistant Cells Act as Niche Engineers to Facilitate Evolutionary Rescue Under Targeted Therapy

Andriy Marusyk

11:05 Kolmogorov-Arnold Networks to Learn Cancer Dynamics

Louise Spekking

11:30 A framework for ecological cascade therapy in cancer

György Barabás

11:55 Blood vessel recruitment by cancer cells: A public goods game or a tragedy of the commons?

Joel Brown, Ranjini Bhattacharya, Anuraag Bukkuri, Robert Gatenby

DGEM 2 Dynamic Games in Economics and Management 2

Location: Room 2

Chair: Petkov, Vladimir, Victoria University of Wellington

- 10:40** **Repeated sealed-bid second-price auctions with inconsistent and asymmetric time preferences**
Anders Joakim Alderborn
- 11:05** **Approximate Equilibria in Finitely Repeated Prisoner's Dilemma with Asymmetric Players**
Elena Parilina, Alena Pisareva, Georges Zaccour
- 11:30** **Legislative bargaining with heterogeneous patient players**
Daniel Cardona, Clara Ponsatí
- 11:55** **Dynamic Taxation of Addictive Goods: When Competition Lowers Corrective Taxes**
Vladimir Petkov, Mark Rabe

COMP 2 Computation of Equilibria 2

Location: Room 3

Chair: Wagener, Florian, Universiteit van Amsterdam

- 10:40** **Public Opinion Synthesis as a Dynamic Game Evaluating LLM Reliability in Social Media Discourse**
Ivan Blekanov, Nikita Tarasov, Svetlana S. Bodrunova
- 11:05** **A new class of games with the fictitious play property identified by geometric approach**
Zhouming Wu, Yifen Mu, Xiaoguang Yang, Ge Chen
- 11:30** **In linear-quadratic dynamic games, Riccati–Stein value functions hide in a lifted state space**
Sergio Grammatico
- 11:55** **On the construction of best responses in a differential game**
Niko Jaakkola, Florian Wagener

12:20 **Lunch**

MFG 3 Mean-Field Games 3

Location: Room

Chair: Le Méneç, Stéphane, MBDA France

- 14:00** **Median-Field Games**
Ilyass Dahmouni, Elena Gubar, Vladislav Taynitskiy

- 14:25** **Maximum Causal Entropy Inverse Reinforcement Learning in Mean-Field Games**
Berkay Anahtarci
- 14:50** **Swarm control based on Mean-Field Game type controls**
Stéphane Le Ménéec

Net Games Recent Advances in Network Games

Location: Room 1
Chair: Zhu, Quanyan, New York University

- 14:00** **Defiance as a Check on Power: Dynamic Hierarchical Games with Endogenous Influence**
Emrah Akyol
- 14:25** **From Reasoning to Control: LLM-Enabled Autonomous Coordination in Wireless Networks**
Hyunggon Park
- 14:50** **Epidemic Dynamics and Strategic Mobility in Networked Metapopulations**
Giuliano Punzo, Daniel Flynn, Anton Selivanov
- 15:15** **Correlated pairwise stability in network formation games**
Yang Zhan, Caihua Chen, Junhao Tao, Yinyu Ye

DGEM 3 Dynamic Games in Economics and Management 3

Location: Room 2
Chair: Sadana, Utsav, Université de Montréal

- 14:00** **Diversity in Schumpeterian games**
Elżbieta Pliś, Fryderyk Falniowski
- 14:25** **Can Non-Use Fees Promote Sustainable Water Management? The Chilean case**
Julia de Frutos, Víctor Bucarey, Andrea Canales, Joel Suarez
- 14:50** **Incentive design in inverse Stackelberg games as well as the sufficient and necessary condition for incentive controllability**
Yifen Mu, xinyi chen
- 15:15** **Revealing and reducing hidden tail bias in entropic risk estimation and optimization**
Utsav Sadana, Erick Delage, Angelos Georghiou

COMP 3 Computation of Equilibria 3

Location: Room 3

Chair: Pnevmatikos, Nikolaos, Université Paris-Panthéon-Assas

14:00 **Natural Invariant Measures for Chaotic Game Dynamics: Finding Order in Chaos**
Jakub Bielawski

14:25 **Markovian process explainer: new XAI method**
Elena Parilina, Georges Zaccour, Chi Zhao

14:50 **Node-wise Optimal Control for Dynamic Prisoner Dilemma Games on General Multilayer Networks**
Giuliano Punzo, Rio Aurachman

15:15 **Limit values in frequency-dependent games with non-separable payoffs: a comparison-principle approach**
Nikolaos Pnevmatikos

SD Symposium Dinner

Location: Room 1

Chair: Wagener, Florian, Universiteit van Amsterdam

July 23, 2026

DIFF 2 Differential Games 2

Location: Room

Chair: Hayek, Naila, Université Paris Panthéon-Assas

08:30 **On dynamic Stackelberg games with endogenous follower control constraints**
Andrzej Nowakowski, Dominika Machowska

08:55 **Model-Based Inverse Problems in Infinite-Horizon Linear-Quadratic Differential Games**
Aaditya Kumar, Puduru Viswanadha Reddy

09:20 **Excess-Based Solutions for Cooperative Differential Games on Networks**
Xinru Wang, Yaroslavna Pankratova, Nadezhda Smirnova

09:45 **Multiobjective calculus of variations in infinite horizon.**
Naila Hayek

EG 4 Evolution and learning in networks and population structures

Location: Room 1

Chair: Bayer, Péter, Universitat Autònoma de Barcelona

08:30 Network reciprocity reshaped by environmental knowledge and feedback

Maria Kleshnina, Amit Basak, Supratim Sengupta

08:55 Cooperating on networks: inequality and social structure

Manuel Staab, Péter Bayer, Maria Kleshnina, Yann Bramoullé

09:20 The Evolution and Propagation of Positive-Sum and Zero-Sum Mindsets in Networks

Elif Genç

09:45 Evolutionarily stable coalitions

Péter Bayer

DGEM 4 Dynamic Games in Economics and Management 4

Location: Room 2

Chair: Navas, Jorge, Universitat de Barcelona

08:30 On the robustness of coalition stability in the great fish war model

Julia de Frutos, Carles Mañó-Cabello, Jesús Marín-Solano

08:55 Artificial Groundwater Recharge in a Differential Game with Asymmetric Farmers

Aitana Vallina Camporro, Julia de Frutos

09:20 Learning equilibria using Minorization-Maximization

Ashok Krishnan Komalan Sindhu, Helene Le Cadre, Ana Busic

09:45 Green channel competition with positional externalities: a differential game approach

Francisco Cabo, Lijue Lu, Jorge Navas

SIG Search and inspection games

Location: Room 3

Chair: Lidbetter, Thomas, Rutgers University

08:30 The Visible Patrolling Game

Sven de Ronde, Loe Schlicher, Marco Slikker, Bart Smeulders

- 08:55** **Competitive Search on a Network, Using Faulty Satnavs (GPS). With Mark Broom
Steve Alpern**
- 09:20** **Search Games with Predictions**
Spyros Angelopoulos, **Thomas Lidbetter**, Konstantinos Panagiotou
- 09:45** **On a Class of Stopping Games with Strict Priority and Asynchronous
Observation**
David Ramsey
- 10:10** **Break**
- 10:40** **Isaacs Awards Presentations**
- CL** **Closing Remarks**
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Location: Room 1

Chair: Wagener, Florian, Universiteit van Amsterdam