

The Twelfth International Conference  
**Game Theory and Management**

27-29 June, 2018  
Saint Petersburg, Russia

*Organized by*  
Saint Petersburg State University  
and  
The International Society of Dynamic Games  
(Russian Chapter)

Saint Petersburg State University  
Volkhovsky per., 3, St. Petersburg, Russia

## **Program Committee**

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# Program

Saint Petersburg State University,  
Volkhovskiy per., 3, St. Petersburg, Russia

<b>Wednesday, June 27</b>		
08:45 – 09:45	<b>REGISTRATION</b>	3 <sup>rd</sup> floor
08:45 – 09:45	COFFEE	Room 307, 3 <sup>rd</sup> floor
09:45 – 10:00	<b>WELCOME ADDRESS</b>	Room 309, 3 <sup>rd</sup> floor
10:00 – 11:00	<b>PLENARY TALK (1)</b>	Room 309
11:10 – 12:10	<b>PLENARY TALK (2)</b>	Room 309
12:10 – 14:00	LUNCH	Dining-hall, 1 <sup>st</sup> floor
14:00 – 16:30	<b>PARALLEL SESSIONS (W1)</b>	Rooms 315, 3 <sup>rd</sup> floor; 410, 4 <sup>th</sup> floor
16:50 – 19:00	<b>PARALLEL SESSIONS (W2)</b>	Rooms 315, 3 <sup>rd</sup> floor; 410, 4 <sup>th</sup> floor
19:00 – 22:00	<b>WELCOME PARTY</b>	Room 403, 4 <sup>th</sup> floor
<b>Thursday, June 28</b>		
09:30 – 10:00	COFFEE	Room 307, 3 <sup>rd</sup> floor
10:00 – 11:00	<b>PLENARY TALK (3)</b>	Room 309, 3 <sup>rd</sup> floor
11:10 – 12:10	<b>PARALLEL SESSIONS (T1)</b>	Rooms 315, 3 <sup>rd</sup> floor; 410, 4 <sup>th</sup> floor
12:10 – 14:00	LUNCH	Dining-hall, 1 <sup>st</sup> floor
14:00 – 16:30	<b>PARALLEL SESSIONS (T2)</b>	Rooms 315, 3 <sup>rd</sup> floor; 408, 410, 4 <sup>th</sup> floor
16:30 – 16:50	COFFEE BREAK	Room 307, 3 <sup>rd</sup> floor
16:50 – 18:05	<b>PARALLEL SESSIONS (T3)</b>	Rooms 315, 3 <sup>rd</sup> floor; 410, 4 <sup>th</sup> floor
<b>Friday, June 29</b>		
09:30 – 10:00	COFFEE	4 <sup>th</sup> floor
10:00 – 11:00	<b>PLENARY TALK (4)</b>	Room 403
11:10 – 12:10	<b>PARALLEL SESSIONS (F1)</b>	Rooms 315, 3 <sup>rd</sup> floor; 408, 410, 4 <sup>th</sup> floor
12:10 – 14:00	LUNCH	Dining-hall, 1 <sup>st</sup> floor
14:00 – 16:10	<b>PARALLEL SESSIONS (F2)</b>	Rooms 408, 410, 4 <sup>th</sup> floor
15:50 – 16:10	<b>CLOSING SESSION</b>	Room 403, 4 <sup>th</sup> floor
19:00 – 22:00	<b>CONFERENCE BANQUET</b>	Restaurant “Restaurant”, Tamozhenny pereulok, 2

## Wednesday, June 27

08:45 – 09:45 REGISTRATION, 3<sup>rd</sup> floor

08:45 – 09:45 COFFEE, room 307, 3<sup>rd</sup> floor

**09:45 – 10:00 WELCOME ADDRESS. GRAND HALL, room 309**  
Co-chairs – Leon Petrosyan and Nikolay Zenkevich

**10:00 – 11:00 PLENARY 1. GRAND HALL, room 309**  
Chair – Leon Petrosyan

**Larry Samuelson**, Yale University (USA)  
*“Learning (to Disagree?) in Large Worlds”*

**11:10 – 12:10 PLENARY 2. GRAND HALL, room 309**  
Chair – Anna Rettieva

**Roland Malhame**, Polytechnique Montreal (Canada)  
*“Min\_LQG games and collective discrete choice problems”*

12:10 – 14:00 LUNCH, Dining-hall, 1<sup>st</sup> floor

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

**DGA-1: room 315, 3<sup>rd</sup> floor**  
**Dynamic Games and Applications - 1**  
Chair – Anatolii Kleimenov

14:00 – 14:25 **Nikolay Krasovskii** and Alexander Tarasyev  
*Shift of the Dynamical Game Trajectory from Competitive Equilibrium to Cooperative Solution*

14:25 – 14:50 **Guennady Ougolnitsky** and Dmitry Rokhlin  
Stackelberg equilibrium in a dynamic incentive model with full information

14:50 – 15:15 Nina Subbotina and **Natalia Novoselova**.  
*Optimal synthesis in mathematical models with piecewise monotone dynamics*

15:15 – 15:40 **Michael Flad**, Julian Ludwig and Soeren Hohmann  
*Differential-Game-Based Driver Assistance System for Fuel-Optimal Driving*

15:40 – 16:05 **Ekaterina Gromova**, Anna Tur and Alla Vikulova  
*Game-theoretical Problem of Pollution Control with Application to Ecological Management in Irkutsk Region of Russia*

16:05 – 16:30 **Anatolii Kleimenov**  
*Decision-making in a hybrid two-stage dynamic control system*

**GEB: room 410, 4<sup>th</sup> floor**  
**Group and Economic Behavior**  
Chair – Igor Bykadorov

14:00 – 14:25 **Victoria Kreps**  
*On the value positivity for matrix game: an economic application*

14:25 – 14:50 Enkhbat Rentsen, **Batbileg Sukhee**, Tungalag Natsagdorj, Gornov Alexander and Anikin Anton  
*A note on four-player triple game*

14:50 – 15:15 **Manuel Staab**  
*The Formation of Social Groups under Status Concern*

15:15 – 15:40 **Daniel Cardona**, Jenny de Freitas and Antoni Rubi-Barcelo  
*Intra-group heterogeneity in endogenous-policy contests*

15:40 – 16:05 Gabriel Ziegler and **Peio Zuazo-Garin**  
*Strategic Cautiousness as an Expression of Robustness to Ambiguity*

16:05 – 16:30 **Igor Bykadorov**  
*Gains and Looses Effects of Trade under Monopolistic Competition: the case of nonlinear production costs*

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

**CGA-1: room 410, 4<sup>th</sup> floor**  
**Cooperative Games and Applications -1**  
Chair – Guennady Ougolnitsky

16:50 – 17:15 **Natalia Naumova** and Elena Chernysheva  
*Allocation problems for generalized games with restricted cooperation*

17:15 – 17:40 Jens Gudmundsson and **Helga Habis**  
*Assignment games with externalities revisited*

17:40 – 18:05 **Puneet Tomar**  
*Cooperation in Multistage and Repeated Hierarchical Games*

18:05 – 18:30 **Olga Kuznetsova** and Natalya Dodonova  
*Development of Strategic thinking model for limited resource allocation in business games by modified Groves-Ledyard mechanism*

18:30 - 18:55 Grigory Belyavsky, Natalya Danilova and **Guennady Ougolnitsky**  
*A method of solution of the Stackelberg game of resource allocation*

**DGA-2: room 315, 3<sup>rd</sup> floor**

**Dynamic Games and Applications -2**

Chair – Leon Petrosyan

16:50 – 17:15 **Youcef Askoura**  
*On the infinite dimensional Lyapunov's convexity theorem and applications*

17:15 – 17:40 **Maria Kleshnina**, Jerzy Filar, Vladimir Ejov and Jody McKerral  
*Evolutionary games under incompetence*

17:40 – 18:05 **Ovanes Petrosian** and Victor Zakharov  
*Existence of IDP-core in Cooperative Differential Games*

18:05 – 18:30 Ekaterina Marova and **Ekaterina Gromova**  
*Constructing a characteristic function in cooperative differential games with negative externalities*

18:30 - 18:55 David Yeung and **Leon Petrosyan**  
Solutions of Cooperative Dynamic Games with Control Lags

**19:00 – 22:00 WELCOME PARTY, room 403, 4<sup>th</sup> floor**

## Thursday, June 28

09:30 – 10:00 COFFEE, room 307, 3<sup>rd</sup> floor

**10:00 – 11:00 PLENARY 3. GRAND HALL, room 309, 3<sup>rd</sup> floor**  
Chair – Vladimir Mazalov

**Dov Samet**, Tel Aviv University (Israel)  
*“Desirability”*

**11:10 – 12:10 T1: PARALLEL SESSIONS**

**SIG: room 315, 3<sup>rd</sup> floor**  
**Stochastic Games and Information**  
Chair – Anna Zseleva

11:10-11:30 **Dmitrii Lozovanu** and Stefan Pickl  
*Determining stationary Nash equilibria for average stochastic positional games*

11:30-11:50 **Suriya Kumacheva**, Elena Gubar, Ekaterina Zhitkova and Galina Tomilina  
*Scenario analysis of the impact of information on tax collections*

11:50-12:10 János Flesch, Dries Vermeulen and **Anna Zseleva**  
*Mixed and behavior strategies in finitely additive decision problems*

**SC: room 410, 4<sup>th</sup> floor**  
**Search and Competition**  
Chair – Nikolay Petrov

11:10 – 11:30 **Vasily Gusev**  
*Dynamic search model of two moving objects on a graph*

11:30 – 11:50 **Petr Ageev**, **Yaroslavna Pankratova** and Svetlana Tarashnina  
*On competition in the telecommunications market*

11:50 – 12:10 Semyon Mestnikov and **Nikolay Petrov**  
*Numerical Construction of the Information Sets and Optimization of Detection Time in the Simple Search Game with a Team of Pursuers on the Plane*

12:10 – 14:00 LUNCH, Dining-hall, 1<sup>st</sup> floor

**14:00 – 16:30 T2: PARALLEL SESSIONS**

**GTMA-1: room 410, 4<sup>th</sup> floor**

**Game Theory and Management Applications - 1**

Chair – Natalia Aizenberg

14:00 – 14:25 **Natalia Aizenberg, Igor Bykadorov** and Sergey Kokovin

*Import tariffs and their influence on countries' welfare*

14:25 – 14:50 **Vincent Meisner**

*Oligopolistic revenue management with myopic buyers*

14:50 – 15:15 **Alexander Sidorov**

*Apology of Schumpeter: Positive Social Welfare effect of Oligopolization*

15:15 – 15:40 **Péter Bayer, Jean-Jacques Herings, Ronald Peeters** and Frank Thuijsman

*Myopic and Farsighted Players in the Local Public Goods Game*

15:40 – 16:05 **Stefano Colombo, Elias Carroni** and Luigi Filippini

*Horizontal misleading advertising*

16:05 – 16:30 **Natalia Aizenberg**

*The problem of demand side management in context of power companies competition on the retail electricity market*

**DGA-3: room 315, 3<sup>rd</sup> floor**

**Dynamic Games and Applications – 3**

Chair – Eugen Kovac

14:00 – 14:25 **Mario Alberto Garcia-Meza**

*Military intervention in the War against Drugs: a Differential Game*

14:25 – 14:50 **Lihong Shi** and **Ovanes Petrosian**

*Looking Forward Approach for dynamic cooperative advertising game model*

14:50 – 15:15 **Vladimir Matveenko, Alexei Korolev** and **Maria Garmash**

*Network Structure, Equilibria, and Adjustment Dynamics in Network Games with Nonhomogeneous Players*

15:15 – 15:40 **Denis Tikhomirov** and **Ovanes Petrosian**

*On Construction of Optimal Strategies for Games with Dynamic Updating*

15:40 – 16:05 **Yin Li** and **Puneet Tomar**

*Construction of  $M$ -strongly time-consistent subcore in the game with spanning forest*

16:05 – 16:30 **Eugen Kovac** and Robert Schmidt

*A simple dynamic climate cooperation model*

**NGA: room 408, 4<sup>th</sup> floor**

**Networking Games and Applications**

Chair – Vladimir Mazalov

14:00 – 14:25 **György Kozics** and **Péter Bayer**

*Best-Response Dynamics in Network Games with Non-reciprocal Interaction*

14:25 – 14:50 **Anastasiia Ivakina** and Nikolay Zenkevich

*Cooperative Solutions of Working Capital Cost Game in Distributive Supply Network*

14:50 – 15:15 **Sun Qiushi**

*One Way Flow Dynamic Network Games With Network Formation Cost*

15:15 – 15:40 **Artem Sedakov** and Mengke Zhen

*Opinion dynamics game in a social network with two influence nodes*

15:40 – 16:05 **Junnan Jie**

*Time-Consistency of Nash Bargaining Solution for different Two-stage Network Games*

16:05 – 16:30 **Vladimir Mazalov** and **Natalia Nikitina.**

*Game-theoretic methods for community detection in networks*

16:30 – 16:50 COFFEE BREAK, room 307, 3<sup>rd</sup> floor

**16:50 – 18:05 T3: PARALLEL SESSIONS**

**GTMA-2: room 410, 4<sup>th</sup> floor**

**Game Theory and Management Applications - 2**

Chair – José Fernández

16:50 – 17:15 Rustam Ibragimov, **Artem Prokhorov** and Johan Walden

*Optimal bundling strategies for complements and substitutes with heavy-tailed valuations*



17:15 – 17:40 **José Fernández**, Said Salhi and Boglárka G.-Tóth  
*A location-price game for locating a competitive facility in the plane*

17:40 – 18:05 **Yulia Lonyagina**, Margarita Gladkova and Natalia Nikolchenko  
*Nash equilibrium in supply chains with hourglasses structure*

**CGA-2: room 315, 3<sup>rd</sup> floor**  
**Cooperative Games and Applications -2**  
Chair – Anna Khmelnitskaya

16:50 – 17:15 **Conrado Manuel** and Daniel Martin  
*A Myerson value for TU-games restricted to graphs with weighted nodes*

17:15 – 17:40 **Conrado Manuel**, Eduardo Ortega and Monica Del Pozo  
*Myerson value and marginality*

17:40 – 18:05 **Anna Khmelnitskaya**, Dolf Talman and Guang Zhang  
*The average tree value for graph games with main players and application to hub and spoke models*

## Friday, June 29

09:30 – 10:00 COFFEE, 4<sup>th</sup> floor

**10:00 – 11:00 PLENARY 4. ROOM 403, 4<sup>th</sup> floor**  
Chair – Elena Parilina

**Anna Rettieva**, Institute of Applied Mathematics, RAS (Russia)  
*Cooperation in the bioresource management problems*

**11:10 – 12:10 F1: PARALLEL SESSIONS**

**OD: room 408, 4<sup>th</sup> floor**  
**Open Discussion**  
Chair – Margarita Gladkova

11:10-12:10 **Victor Naroditskiy**  
*Market Manipulation: Game-theoretic Research Agenda*

**AM: room 410, 4<sup>th</sup> floor**  
**Auctions and Mechanisms**  
Chair – Rann Smorodinsky

11:10-11:30 **Karl-Martin Ehrhart**, Marie-Christin Haufe and **Jan Kreiss**  
*Multi-Unit Common Value Auctions and the Winner's Curse – A Theoretical and Experimental Analysis*

11:30-11:50 **Ann-Katrin Hanke**, Karl-Martin Ehrhart and Marion Ott  
*Refund of Uncertainty-Reducing Prequalification Measures in Procurement Auctions*

11:50-12:10 **Rann Smorodinsky**, Moran Koren and Itai Arieli.  
*The One-Shot Crowdfunding Game*

**APB: room 315, 3<sup>rd</sup> floor**  
**Acceptable Points and Bargaining**  
Chair – Ramzi Suleiman

11:10 – 11:30 **Victor Rozen**  
*Acceptable points in games with ordered outcomes*

11:30 – 11:50 **Sergei Dotsenko**  
*On partisan games in secretary problem*

11:50 – 12:10 **Ramzi Suleiman**

*On Gamesmen and Fair men: Explaining Fairness in Noncooperative Bargaining Games*

12:10 – 14:00 LUNCH, Dining-hall, 1<sup>st</sup> floor

**14:00 – 17:00 F2: PARALLEL SESSIONS**

**GTMA-3: room 410, 4<sup>th</sup> floor**

**Game Theory and Management Applications – 3**

Chair – Pierre Von Mouche

14:00 – 14:30 **Vadim Glukhov and Olga Kuznetsova**

*Banking oligopoly market segmentation based on modified Cournot oligopoly model*

14:30 – 15:00 **Konstantinos Papadopoulos and Chariklia Dermentzi**

*Outsource to or Compete with a More Efficient Input Supplier? Strategic Outsourcing versus Strategic Competition*

15:00 – 15:30 **Chenghu Ma**

*Impact of short-selling on security trading and pricing*

15:30 – 16:00 **Taisiia Plekhanova, Stewart Blakeway, Ekaterina Gromova** and Anna Kirpichnikova

*Increasing MANET performance by using the game theory principles and techniques*

16:00 – 16:30 **Dmitriy Smirnov and Ekaterina Gromova**

*A modified multi-armed bandit problem and its application to internet advertising*

16.30 – 17.00 **Pierre Von Mouche, Takuya Iimura and Takahiro Watanabe**

*On Equilibria of Continuous and Discrete Hotelling Pure Location Games*

**MA: room 408, 4<sup>th</sup> floor**

**Modelling and Applications**

Chair – Denis Fedyanin

14:00 – 14:30 **Anna Khmelnitskaya, Elena Parilina and Artem Sedakov**

*Endogenous graph formation in TU games with major player*

14:30 – 15:00 **Georgy Artemov, Yeon-Koo Che and Yinghua He**

*Strategic 'Mistakes': Implications for Market Design Research*

15:00 – 15:30 **Oleg Pavlov**

*Dynamic game model of executors incentives in projects for the development of new production*

15:30 – 16:00 **Denis Kuzyutin, Maria Bartel and Nadezhda Smirnova**

*Product differentiation in the insurance market: equilibria analysis*

16:00 – 16:30 **Kseniya Staroverova and Vladimir Bure**

*Cluster analysis as a cooperative game with coalition structure*

16:30 – 17:00 **Denis Fedyanin**

*Complex mechanisms of reflexive control in the game of collective actions*

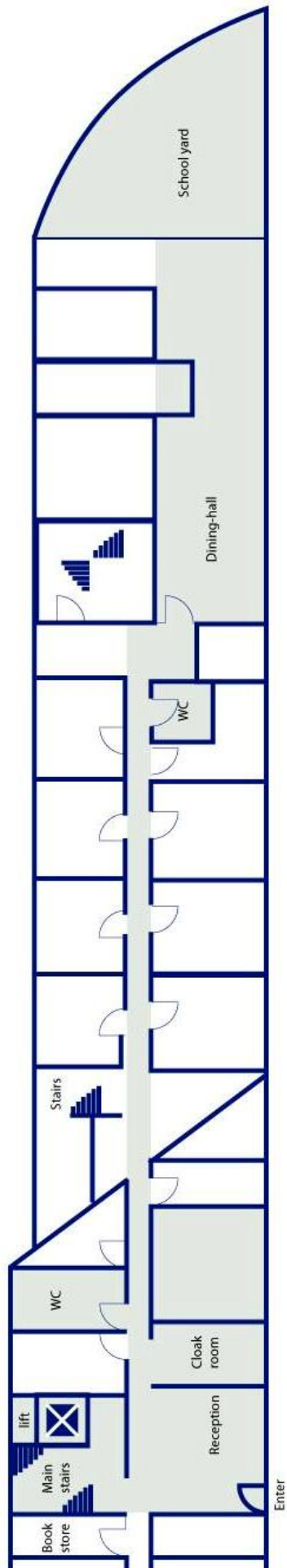
**17:10 – 17:30 CLOSING SESSION: ROOM 403, 4<sup>th</sup> floor**

Chair – Leon Petrosyan

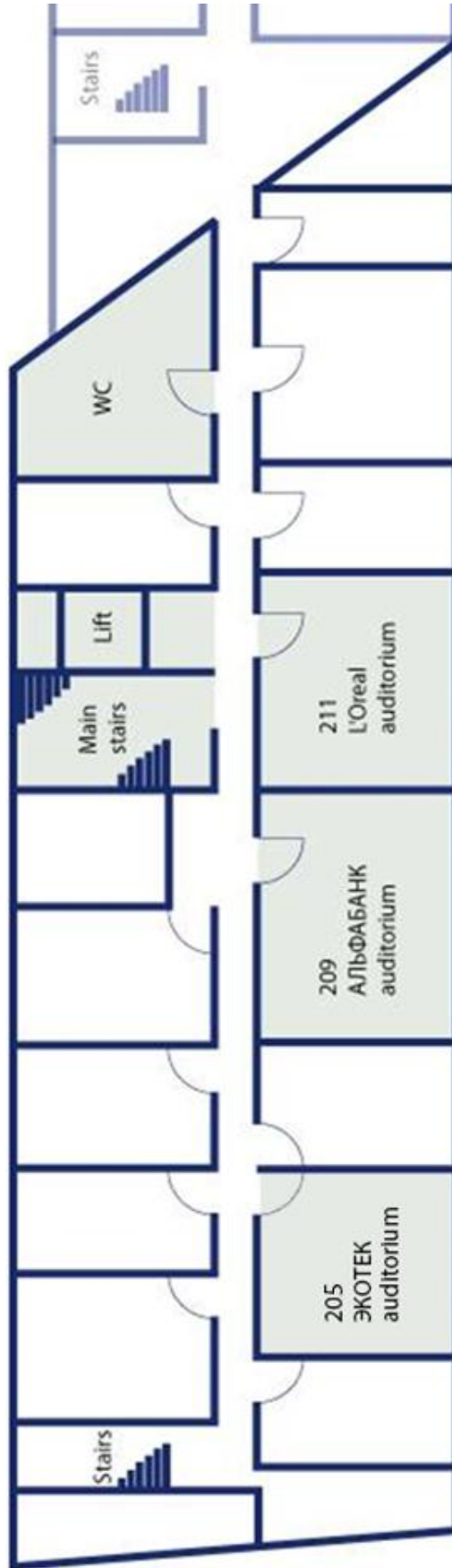
**19:00 – 22:00 CONFERENCE BANQUET,**

Restaurant “Restaurant”, Tamozhenny pereulok, 2

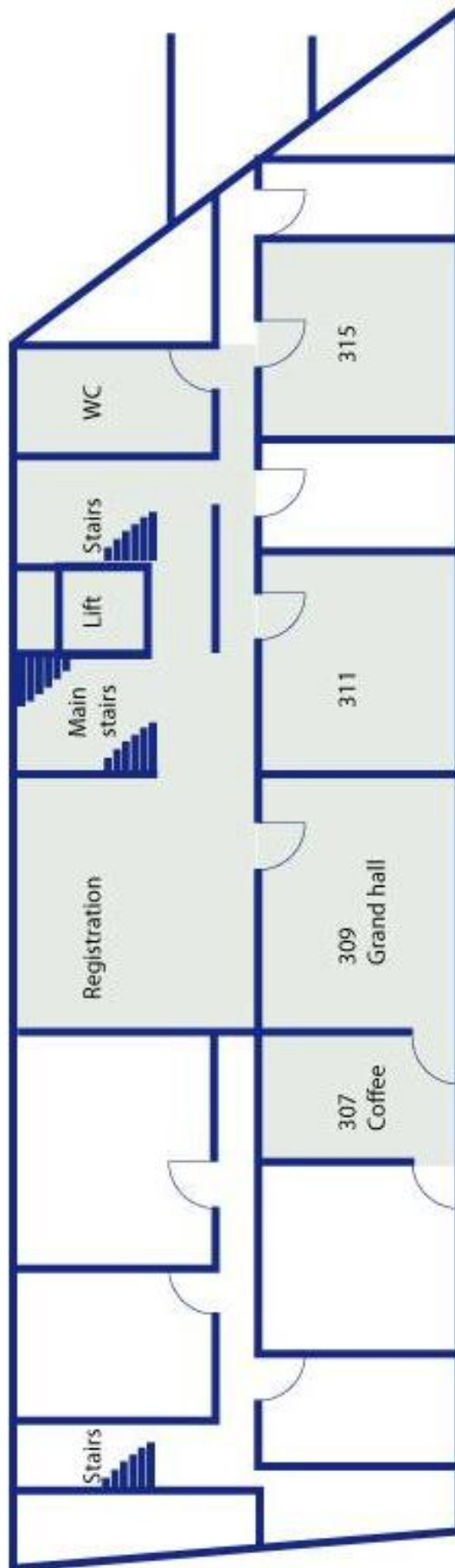
# First floor



## Second floor



## Third floor



## Fourth floor

