

*24<sup>th</sup> Annual International Conference*

# Real Options

*Theory Meets Practice*

*Organized by*

Real Options Group  
University of Porto

*In cooperation with*

Northwestern University and  
University of California at Los Angeles

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**September 2 – 4, 2021**

# Program Sessions Summary Guide

(ALL SESSIONS ARE REMOTE VIA ZOOM; TIME IS PORTUGAL TIME)

## DAY 1 – THURSDAY SEPTEMBER 2

	TRACK I	TRACK II
10:45 – 10:55	Welcome & Guidelines	
11:00 – 12:15	Strategy & Switching Applications	Operations & Applications
12:30 – 1:45	Energy & Renewables	Contract Design & Pricing
2:00 – 3:00	Break	
3:00 – 4:15	Option Games & Exit	Investment Dynamics, Financing & Learning
4:30 – 5:45	Innovation	Product Markets & Investment
6:00 – 7:15	Public Policy Issues	Capital Investment & Financing

## DAY 2 – FRIDAY SEPTEMBER 3

	TRACK I	TRACK II
11:00 – 12:15	Acquisitions & Cooperation	Contract Design, Auctions & Concessions
12:45 – 2:00	Energy Applications	Network Interactions: Integration, Cost & Trade Credit
2:00 – 3:30	Break	
3:30 – 4:45	Energy & Environmental Policy	Investment, Tech Adoption & Behavioral Finance
5:00 – 6:15	Investment & Learning	Public Ownership & Corporate Cash Holdings
6:45 – 7:30	Keynote Address by Erwan Morellec (EPFL)	
7:40 – 8:30	Panel Discussion – The Pandemic, Digitalization & Real Options: Challenges and Future Prospects	

## DAY 3 – SATURDAY SEPTEMBER 4

	TRACK I	TRACK II
11:00 – 12:15	Resource Suspension, Expansion & Exchange Options	Invest. Capacity & Timing I
12:45 – 2:00	Strategic Investment & Games	Invest. Capacity & Timing II

# Program Sessions

## Day 1 – Thursday September 2

**10:45 – 10:55 WELCOME & GUIDELINES**

**11:00 – 12:15 TRACK I**

**STRATEGY & SWITCHING APPLICATIONS**

**CHAIRPERSON: DEAN PAXSON (UNIVERSITY OF MANCHESTER, UK)**

*Uncertain Commodity Prices and Informed Sensitivity Analyses*

Babak Jafarizadeh (Heriot-Watt University, United Kingdom)

*Discussant: Dean Paxson (University of Manchester, United Kingdom)*

*Optimization of an Investment Project Portfolio using the Omega Measure*

Javier Castro (Federal University of Santa Catarina – UFSC, Brazil)

Edison Tito (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

Luiz Brandão (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

*Discussant: Babak Jafarizadeh (Heriot-Watt University, United Kingdom)*

*Input-Output Switching Options*

Dean Paxson (University of Manchester, United Kingdom)

Roger Adkins (Bradford University, United Kingdom)

*Discussant: Javier Castro (Federal University of Santa Catarina – UFSC, Brazil)*

**11:00 – 12:15 TRACK II**

**OPERATIONS & APPLICATIONS**

**CHAIRPERSON: DANIEL MCKEEVER (BINGHAMTON UNIVERSITY, USA)**

*Evaluation of Flexible Concession Contracts*

Naielly Marques (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

Carlos Bastian-Pinto (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

Luiz Brandão (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

Bárbara Gonzaga (Pontifical Catholic University of Rio de Janeiro – PUC-Rio, Brazil)

*Discussant: Daniel McKeever (Binghamton University, United States)*

***Hedging Agribusiness Price Risk with Crop Rotation: An Application in Brazil***

Luiz Bastian (Independent Researcher, Brazil)

Carlos Bastian-Pinto (Pontifícia Universidade Católica of Rio de Janeiro, Brazil)

Luiz Brandão (Pontifícia Universidade Católica of Rio de Janeiro, Brazil)

*Discussant: Naielly Marques (PUC-Rio, Brazil)*

***Tax-Loss Harvesting: Empirical Evidence***

Daniel McKeever (Binghamton University, United States)

Kristian Rydqvist (Binghamton University, United States)

*Discussant: Carlos Bastian-Pinto (PUC-Rio, Brazil)*

**12:30 – 1:45 TRACK I**

**ENERGY & RENEWABLES**

**CHAIRPERSON: JACCO THIJSSEN (UNIVERSITY OF YORK, UK)**

***Renewable Energy Investment, Support Schemes and the Dirty Technology Option***

Domenico De Giovanni (University of Calabria, Italy)

Elena Iakimova (University of Calabria, Italy)

*Discussant: Jacco Thijssen (University of York, United Kingdom)*

***Leaving Well-Worn Paths: Reversal of the Investment-Uncertainty Relationship and Flexible Biogas Plant Operation***

Gordon Briest (Otto-von-Guericke University Magdeburg, Germany)

Lars-Peter Lauven (University of Kassel, Germany)

Stefan Kupfer (Otto-von-Guericke University Magdeburg, Germany)

Elmar Lukas (Otto-von-Guericke University Magdeburg, Germany)

*Discussant: Domenico De Giovanni (University of Calabria, Italy)*

***Optimal Abandonment with Levy Jumps, Randomization over Thresholds and Electricity Production***

Laura Delaney (City, University of London, United Kingdom)

Jacco Thijssen (University of York, United Kingdom)

*Discussant: Gordon Briest (Otto-von-Guericke University Magdeburg, Germany)*

**12:30 – 1:45 TRACK II**

**CONTRACT DESIGN & PRICING**

**CHAIRPERSON: LENOS TRIGEORGIS (UNIVERSITY OF CYPRUS)**

***LPVR Auctions and Flexible-Term Concession Contracts under Uncertainty***

Carlos Bastian-Pinto (Pontifícia Universidade Católica of Rio de Janeiro, Brazil)

Naielly Lopes Marques (Pontifícia Universidade Católica of Rio de Janeiro, Brazil)

Luiz Brandão (Pontifícia Universidade Católica of Rio de Janeiro, Brazil)

*Discussant: Francesco Baldi (University of Turin and LUISS Guido Carli University, Italy)*

***Pricing Mechanisms and Early Termination in Road Infrastructure Projects***

Carlos Andrés Zapata (Universidad Externado, Colombia)

Carlos Armando Mejía (Universidad Externado, Colombia)

*Discussant: Carlos Bastian-Pinto (PUC-Rio, Brazil)*

***Designing Optionality in Biopharma Licensing Agreements***

Francesco Baldi (University of Turin and LUISS Guido Carli University, Italy)

Lenos Trigeorgis (University of Cyprus, Cyprus)

*Discussant: Carlos Andrés Zapata (Universidad Externado, Colombia)*

**2:00 – 3:00 BREAK**

**3:00 – 4:15 TRACK I**

**OPTION GAMES & TERMINATION**

**CHAIRPERSON: KUNO HUISMAN (TILBURG UNIVERSITY, NETHERLANDS)**

***Renewable Investment with Subsidy Termination Risk***

Roel Nagy (NTNU, Norway)

Stein-Erik Fleten (NTNU, Norway)

Lars Hegnes Sendstad (NTNU, Norway)

*Discussant: Anne Balter (Tilburg University, Netherlands)*

***Get Out or Switch and Down-scale: Competitive Strategies in a Declining Market***

Roger Adkins (Bradford University, United Kingdom)

Alcino Azevedo (Aston University, United Kingdom)

Dean Paxson (University of Manchester, United Kingdom)

*Discussant: Roel Nagy (NTNU, Norway)*

***Effects of Creative Destruction on the Size and Timing of Investment***

Anne Balter (Tilburg University, Netherlands)

Kuno Huisman (Tilburg University, Netherlands)

Peter Kort (Tilburg University, Netherlands)

*Discussant: Alcino Azevedo (Aston University, United Kingdom)*

### **3:00 – 4:15 TRACK II**

#### **INVESTMENT DYNAMICS, FINANCING & LEARNING**

**CHAIRPERSON: ELETTRA AGLIARDI (UNIVERSITY OF BOLOGNA, ITALY)**

***Optimal Investment Decisions with Production Flexibility and Supplier Trade Credit***

Nicos Koussis (Frederick University, Cyprus)

Florina Silaghi (Universitat Autònoma de Barcelona, Spain)

*Discussant: Elettra Agliardi (University of Bologna, Italy)*

***Investment and Financing Decisions with Learning-curve Technology***

Sudipto Sarkar (McMaster University, Canada)

Chuanqian Zhang (William Paterson University, United States)

*Discussant: Nicos Koussis (Frederick University, Cyprus)*

***Long-term Profitability, Earnings Mean-reversion and Optimal Capital Structure***

Elettra Agliardi (University of Bologna, Italy)

Marios Charalambides (Frederick University, Cyprus)

Nicos Koussis (Frederick University, Cyprus)

*Discussant: Sudipto Sarkar (McMaster University, Canada)*

### **4:30 – 5:45 TRACK I**

#### **INNOVATION**

**CHAIRPERSON: ELMAR LUKAS (UNIVERSITY OF MAGDEBURG, GERMANY)**

***Radical vs. Incremental Innovation under Competition with Imitator Lag***

Stefan Kupfer (Otto-von-Guericke-University Magdeburg, Germany)

Elmar Lukas (Otto-von-Guericke-University Magdeburg, Germany)

Gordon Briest (Otto-von-Guericke-University Magdeburg, Germany)

*Discussant: Du Liu (University of Warwick, United Kingdom)*

***Innovation and Patent Litigation with Financial Constraints: American versus English Rule***

Danmo Lin (University of Warwick, United Kingdom)

Du Liu (University of Warwick, United Kingdom)

Elizabeth Whalley (University of Warwick, United Kingdom)

*Discussant: Stefan Kupfer (Otto-von-Guericke-University Magdeburg, Germany)*

## 4:30 – 5:45 TRACK II

### PRODUCT MARKETS & INVESTMENT

**CHAIRPERSON: HAMED GHODDUSI (CALIFORNIA POLYTECHNIC STATE UNIVERSITY, USA)**

***Optimal Platform Pricing when Consumers have Real Options***

Hamed Ghoddusi (California Polytechnic State University, United States)

Alexander Rodivilov (Stevens Institute of Technology, United States)

Baran Siyahhan (Institut Mines-Telecom Business School, France)

*Discussant: Igor Kravchenko (IST-ID and CEMAT, Portugal)*

***Competition, Investment Reversibility and Stock Returns***

Zhou Zhang (NEOMA Business School, France)

*Discussant: Hamed Ghoddusi (California Polytechnic State University, United States)*

***Investment with Switching Modes***

Cláudia Nunes (Universidade de Lisboa, Portugal)

Carlos Oliveira (EMAPRE, Universidade de Lisboa, Portugal)

Igor Kravchenko (IST-ID and CEMAT, Portugal)

*Discussant: Zhou Zhang (NEOMA Business School, France)*

## 6:00 – 7:15 TRACK I

### PUBLIC POLICY ISSUES

**CHAIRPERSON: ELIZABETH WHALLEY (UNIVERSITY OF WARWICK, UK)**

***Optimal Market Entry Cap when Production has Negative Externalities:  
A Policy Perspective***

Yishay Maoz (The Open University, Israel)

Luca Di Corato (Università Ca' Foscari, Italy)

*Discussant: Chi Truong (Macquarie University, Australia)*

***The Value of Species Existence, Climate Variability, and Investments in Habitat  
Enhancement***

Elizabeth Whalley (University of Warwick, United Kingdom)

*Discussant: Yishay Maoz (The Open University, Israel)*

***Bayesian Adaptation to Catastrophic Risk under Climate Uncertainty***

Chi Truong (Macquarie University, Australia)

Stefan Trueck (Macquarie University, Australia)

Ken Siu (Macquarie University, Australia)

Michael Goldstein (Babson College, United States)

*Discussant: Elizabeth Whalley (University of Warwick, United Kingdom)*

## **6:00 – 7:15 TRACK II**

### **CAPITAL INVESTMENT & FINANCING**

**CHAIRPERSON: NICK HUBERTS (UNIVERSITY OF YORK, UK)**

#### ***Optimal Project Promotion Strategies for Crowdfunding Platforms***

Vineeth Varma (Université de Lorraine, CNRS, CRAN, France)

Linda Salahaldin (ESCE, France)

Salah El Ayoubi (Université Paris Saclay, CNRS, France)

*Discussant: Herbert David (Bielefeld University, Germany)*

#### ***Hedging Effect of Low-Quality Capital Assets in Competitive Industries***

Hamed Ghoddusi (California Polytechnic State University, United States)

Thomas Dangl (TU Wien, Austria)

*Discussant: Salah El Ayoubi (Université Paris Saclay, CNRS, France)*

#### ***Capacity Investment with Debt Financing: A Double Marginalization Effect***

Herbert Dawid (Bielefeld University, Germany)

Nick Huberts (University of York, United Kingdom)

Kuno Huisman (Tilburg University, Netherlands)

Peter Kort (Tilburg University, Netherlands)

Xingang Wen (Bielefeld University, Germany)

*Discussant: Hamed Ghoddusi (California Polytechnic State University, United States)*



## Day 2 – Friday September 3

11:00 – 12:15 TRACK I

### ACQUISITIONS & COOPERATION

**CHAIRPERSON: ARKADIY SAKHARTOV (UNIVERSITY OF ILLINOIS, USA)**

#### *Toehold Acquisition as a Sequential Real Option*

José Lacerda (University of Porto, Portugal)

Paulo J. Pereira (University of Porto, Portugal)

Artur Rodrigues (University of Minho, Portugal)

*Discussant: Tine Compernelle (University of Antwerp, Belgium)*

#### *Resource Redeployment in Corporate Acquisitions*

Arkadiy Sakhartov (University of Illinois at Urbana-Champaign, United States)

Jeffrey Reuer (University of Colorado, United States)

*Discussant: Paulo J. Pereira (University of Porto, Portugal)*

#### *Cooperation over Investment in CO2 Emission Reduction Technology*

Tine Compernelle (University of Antwerp, Belgium)

Jacco Thijssen (University of York, United Kingdom)

*Discussant: Arkadiy Sakhartov (University of Illinois at Urbana-Champaign, United States)*

11:00 – 12:15 TRACK II

### CONTRACT DESIGN, AUCTIONS & CONCESSIONS

**CHAIRPERSON: LUIZ BRANDÃO (PUC-RIO, BRAZIL)**

#### *Bidding Price under Uncertainty: An Application to a Mineral Deposit Auction*

Lucas Mesz (Pontifical Catholic University of Rio de Janeiro, Brazil)

Luiz Brandão (Pontifical Catholic University of Rio de Janeiro, Brazil)

Carlos Bastian-Pinto (Pontifical Catholic University of Rio de Janeiro, Brazil)

*Discussant: Felipe Van de Sande Araujo (PUC – Rio, Brazil)*

#### *Fiscal Impact of Government Guarantees in PPP Highway Concession Projects*

Rodrigo Sant'Anna (Pontifical Universidade Católica of Rio de Janeiro, Brazil)

Luiz Brandão (Pontifical Universidade Católica of Rio de Janeiro, Brazil)

Carlos Bastian-Pinto (Pontifical Universidade Católica of Rio de Janeiro, Brazil)

Leonardo Gomes (Pontifical Universidade Católica of Rio de Janeiro, Brazil)

*Discussant: Lucas Mesz (PUC – Rio, Brazil)*

***A Model of the Forward Curve of Electric Power: An Application in Brazil***

Felipe Van de Sande Araujo (Pontifícia Universidade Católica do Rio de Janeiro, Brazil)

Leonardo Lima Gomes (Pontifícia Universidade Católica do Rio de Janeiro, Brazil)

Luiz Brandão (Pontifícia Universidade Católica do Rio de Janeiro, Brazil)

*Discussant: Rodrigo Sant'Anna (PUC – Rio, Brazil)*

**12:15 – 12:45 BREAK**

**12:45 – 2:00 TRACK I**

**ENERGY APPLICATIONS**

**CHAIRPERSON: VERENA HAGSPIEL (NTNU, NORWAY)**

***Investment in a Power-to-Gas Plant: An Application in Germany***

Georg Schultes (RWTH Aachen University, Germany)

Reinhard Madlener (RWTH Aachen University, E.ON ERC, FCN, Germany)

*Discussant: Semyon Fedorov (NTNU, Norway)*

***Dynamic Hedging for Management of Hydropower Production with Exchange Risk***

Joakim Dimoski (Norwegian University of Science and Technology, Norway)

Stein-Erik Fleten (Norwegian University of Science and Technology, Norway)

Nils Löhndorf (University of Luxembourg, Luxembourg)

Sveinung Nersten (Norwegian University of Science and Technology, Norway)

*Discussant: Reinhard Madlener (RWTH Aachen University, Germany)*

***Staged Marginal Oil Field Development with Optional Wells***

Semyon Fedorov (Norwegian University of Science and Technology, Norway)

Verena Hagspiel (Norwegian University of Science and Technology, Norway)

Thomas Lerdahl (OKEA ASA, Norway)

*Discussant: Stein-Erik Fleten (NTNU, Norway)*

**12:45 – 2:00 TRACK II**

**NETWORK INTERACTIONS: INTEGRATION, COST & TRADE CREDIT**

**CHAIRPERSON: FLORINA SILAGHI (UNIVERSITAT AUTÒNOMA DE BARCELONA, SPAIN)**

***Project Financing and Corporate Integration under Operational and Financial Risk***

Maximilian Schreiter (HHL Leipzig Graduate School of Management, Germany)

*Discussant: Florina Silaghi (Universitat Autònoma de Barcelona, Spain)*

***Investment with Declining Costs Following a Lévy Process***

Fredrik Armerin (KTH Royal Institute of Technology, Sweden)

*Discussant: Maximilian Schreiter (HHL Leipzig Graduate School of Management, Germany)*

***A Theory of Trade Credit and Procurement, Duration and Optimal Order Quantities***

Nicos Koussis (Frederick University, Cyprus)

Florina Silaghi (Universitat Autònoma de Barcelona, Spain)

*Discussant: Fredrik Armerin (KTH Royal Institute of Technology, Sweden)*

**2:00 – 3:30 BREAK**

**3:30 – 4:45 TRACK I**

**ENERGY & ENVIRONMENTAL POLICY**

**CHAIRPERSON: STEIN-ERIK FLETEN (NTNU, NORWAY)**

***Investment in a Plastics Circular Economy under Policy Uncertainty***

Loïc De Weerd (University of Antwerp, Belgium)

Verena Hagspiel (Norwegian University of Science and Technology, Norway)

Peter Kort (University of Antwerp, Belgium)

Carlos Oliveira (Instituto Superior de Economia e Gestão, Portugal)

Tine Compernelle (University of Antwerp, Belgium)

*Discussant: Xingang Wen (Bielefeld University, Germany)*

***How Alternative Renewable Energy Support Policies Address Technology Development***

Mariia Kozlova (LUT University, Finland)

Stein-Erik Fleten (Norwegian University of Science and Technology, Norway)

Verena Hagspiel (Norwegian University of Science and Technology, Norway)

*Discussant: Carlos Oliveira (Instituto Superior de Economia e Gestão, Portugal)*

***How Damaging are EU Environmental Policy Targets in Terms of Welfare?***

Simona Bigerna (University of Perugia, Italy)

Verena Hagspiel (Norwegian University of Science and Technology, Norway)

Peter Kort (Tilburg University, Netherlands)

Xingang Wen (Bielefeld University, Germany)

*Discussant: Mariia Kozlova (LUT University, Finland)*

### **3:30 – 4:45 TRACK II**

#### **INVESTMENT, TECHNOLOGY ADOPTION & BEHAVIORAL FINANCE**

**CHAIRPERSON: PAULO J. PEREIRA (UNIVERSITY OF PORTO, PORTUGAL)**

##### ***Postponing Investment Decisions: Theory and Experiment***

Azzurra Morreale (LUT University, Finland)

Thi Thanh Tam Vu (University of Trento, Italy)

Luigi Mittone (University of Trento, Italy)

Mikael Collan (LUT University, Finland)

*Discussant: Elmar Lukas (University of Magdeburg, Germany)*

##### ***Strategies of New Technology Adoption: Laboratory Experiments***

Besma Teffahi (Manuba University, Tunisia)

Walid Hichri (Université Lumière Lyon 2, France)

*Discussant: Azzurra Morreale (LUT University, Finland)*

##### ***On the Choice between Mergers and Acquisitions: An Option Games Approach***

Elmar Lukas (University Magdeburg, Germany)

Paulo J. Pereira (University of Porto, Portugal)

Artur Rodrigues (University of Minho, Portugal)

*Discussant: Besma Teffahi (Manuba University, Tunisia)*

### **5:00 – 6:15 TRACK I**

#### **INVESTMENT & LEARNING**

**CHAIRPERSON: PETER KORT (TILBURG UNIVERSITY, NETHERLANDS)**

##### ***Real Options and Diagnosis Related Group Classification for Hospital Management***

Milena Rocha (UFMG, Brazil)

Márcio Augusto Gonçalves (UFMG, Brazil)

Yuri Lawryshyn (University of Toronto, Canada)

*Discussant: Martijn Ketelaars (Tilburg University, Netherlands)*

##### ***Staged Manufacturing in New Market Entry***

Stein-Erik Fleten (NTNU, Norway)

Mariia Kozlova (LUT, Finland)

Yuri Lawryshyn (University of Toronto, Canada)

*Discussant: Milena Rocha (UFMG, Brazil)*

##### ***Optimal R&D Investment: Private and Social Perspectives***

Martijn Ketelaars (Tilburg University, Netherlands)

Peter Kort (Tilburg University, Netherlands)

*Discussant: Stein-Erik Fleten (NTNU, Norway)*

**5:00 – 6:15 TRACK II**

**PUBLIC OWNERSHIP & CORPORATE CASH HOLDINGS**

**CHAIRPERSON: GRZEGORZ PAWLINA (LANCASTER UNIVERSITY, UK)**

***Voluntary Delisting from a Major Exchange***

Izidin El Kalak (Cardiff University, United Kingdom)

Alcino Azevedo (Aston University, United Kingdom)

Radu Tunaro (University of Sussex, United Kingdom)

Gonul Colak (Hanken School of Economics, Finland)

*Discussant: Maria Lavrutich (NTNU, Norway)*

***Monitoring and Managerial Entrenchment with Corporate Cash Holdings***

Panagiotis Couzoff (Universidade Catolica Portuguesa, Portugal)

Shantanu Banerjee (Lancaster University, United Kingdom)

Grzegorz Pawlina (Lancaster University, United Kingdom)

*Discussant: Alcino Azevedo (Aston University, United Kingdom)*

***Predatory Pricing and the Value of Corporate Cash Holdings***

Maria Lavrutich (Norwegian University of Science and Technology, Norway)

Jacco Thijssen (University of York, United Kingdom)

*Discussant: Panagiotis Couzoff (Universidade Catolica Portuguesa, Portugal)*

**6:15 – 6:45 AFTERNOON COFFEE BREAK**

**6:45 – 7:30 KEYNOTE ADDRESS BY ERWAN MORELLEC (EPFL, SWITZERLAND)**

**7:40 – 8:30 PANEL DISCUSSION – THE PANDEMIC, DIGITALIZATION & REAL OPTIONS: CHALLENGES AND FUTURE PROSPECTS**

**MODERATOR: DEAN PAXSON (UNIVERSITY OF MANCHESTER, UK)**

**PANELISTS INCLUDE:**

*Luiz Brandao (PUC-Rio, Brazil)*

*Mikael Collan (LUT University, Finland)*

*Hamed Ghodusi (California Polytechnic State University, United States)*

*Peter Kort (Tilburg University, Netherlands)*

*Elmar Lukas (University of Magdeburg, Germany)*

*Paulo J. Pereira (University of Porto, Portugal)*

*Grzegorz Pawlina (Lancaster University, United Kingdom)*

## Day 3 – Saturday September 4

11:00 – 12:15 TRACK I

**RESOURCE SUSPENSION, EXPANSION & EXCHANGE OPTIONS**

**CHAIRPERSON: TOBY LI (TEXAS A&M UNIVERSITY, USA)**

***Expansion of Foreign Subsidiaries by Multinational Corporations***

Arkadiy Sakhartov (University of Illinois at Urbana-Champaign, United States)

Jeffrey Reuer (University of Colorado, United States)

*Discussant: Marta Castellini (Università degli Studi di Brescia, FEEM, Italy)*

***Temporary Resource Suspension and Erosion of Firm Capability***

Jan-Michael Ross (Imperial College London, United Kingdom)

Toby Li (Texas A&M University, United States)

Ashton Hawk (University of Colorado, United States)

Jeffrey Reuer (University of Colorado, United States)

*Discussant: Arkadiy Sakhartov (University of Illinois at Urbana-Champaign, United States)*

***Setting up an Energy Community: An Application in Italy's Photovoltaic Market***

Marta Castellini (Università degli Studi di Brescia, FEEM, Italy)

Luca Di Corato (Ca' Foscari University, Italy)

Michele Moretto (Università degli Studi di Padova, Italy)

Sergio Vergalli (Università degli Studi di Brescia, FEEM, Italy)

*Discussant: Toby Li (Texas A&M University, United States)*

11:00 – 12:15 TRACK II

**INVESTMENT CAPACITY & TIMING I**

**CHAIRPERSON: MAXIMILIAN BRILL (UNIVERSITY OF ANTWERP, BELGIUM)**

***Optimal Capacity and Investment Timing with a Production Cap***

Roger Adkins (University of Bradford, United Kingdom)

Dean Paxson (University of Manchester, United Kingdom)

*Discussant: Maximilian Brill (University of Antwerp, Belgium)*

***Optimal Investment (Timing and Scale) in Flexible Combined Heat and Power (CHP) Generation***

Dimitrios Zormpas (University of Brescia, Italy)

Giorgia Oggioni (University of Brescia, Italy)

*Discussant: Dean Paxson (University of Manchester, United Kingdom)*

***Infrastructure Investment in Public Transport: An Option Game Analysis***

Maximilian Brill (University of Antwerp, Belgium)  
Bruno De Borger (University of Antwerp, Belgium)  
Tine Compernelle (University of Antwerp, Belgium)  
Peter Kort (Tilburg University, Netherlands)  
*Discussant: Dimitrios Zormpas (University of Brescia, Italy)*

**12:15 – 12:45 BREAK**

**12:45 – 2:00 TRACK I**

**STRATEGIC INVESTMENT & GAMES**

**CHAIRPERSON: RICHARD RUBLE (EMLYON BUSINESS SCHOOL, FRANCE)**

***Technology Adoption by Risk-averse Firms in a Cournot Duopoly***

Besma Teffahi (Manouba University, Tunisia)  
Walid Hichri (Lyon 2 University, France)  
*Discussant: Farzan Faninam (Tilburg University, Netherlands)*

***The Dynamics of Preemptive and Follower Investments with Overlapping Ownership***

Dimitrios Zormpas (University of Brescia, Italy)  
Richard Ruble (Emlyon Business School & GATE CNRS, France)  
*Discussant: Besma Teffahi (Manouba University, Tunisia)*

***Strategic Investment Under Uncertainty in a Triopoly Market***

Farzan Faninam (Tilburg University, Netherlands)  
Peter Kort (Tilburg University, Netherlands)  
Kuno Huisman (Tilburg University, Netherlands)  
*Discussant: Dimitrios Zormpas (University of Brescia, Italy)*

**12:45 – 2:00 TRACK II**

**INVESTMENT CAPACITY & TIMING II**

**CHAIRPERSON: MOTOH TSUJIMURA (DOSHIHA UNIVERSITY, JAPAN)**

***Investment Timing and Optimal Capacity Choice with Price Floors and Ceilings***

Dean Paxson (University of Manchester, United Kingdom)  
Paulo J. Pereira (University of Porto, Portugal)  
Artur Rodrigues (University of Minho, Portugal)  
*Discussant: Nick Huberts (University of York, United Kingdom)*

***Capital Expansion and Contraction with Fixed and Proportional Costs and Irreversibility Risk***

Motoh Tsujimura (Doshisha University, Japan)

Hidekazu Yoshioka (Shimane University, Japan)

*Discussant: Dean Paxson (University of Manchester, United Kingdom)*

***The Impact of Economic Depreciation on Capital Investment Size, Timing and Social Welfare***

Nick Huberts (University of York, United Kingdom)

Rafael Rossi Silveira (University of York, United Kingdom)

*Discussant: Motoh Tsujimura (Doshisha University, Japan)*

**CONCLUSION**

**CONFERENCE ENDS**



# Conference Venue and Logistics

**Venue** The conference will take place entirely remotely (online). The host is the School of Economics and Management (FEP) of the University of Porto, Rua Dr. Roberto Frias, 4200-464 Porto. A UNESCO World Heritage, Porto is a favourite tourist destination, selected as Best European Destination in 2012, 2014 and 2017, renowned for the Douro River, Port wine, food, and beautiful Baroque architecture. The conference will follow a hybrid format, accommodating both in person attendance and remote participation.

**Fees & Registration** Fees are €100 for remote participation if register by May 15. Registration fees go up by 20% after the registration deadlines i.e., to €120 after May 15. Registration should be made online via the conference website [www.realoptions.org](http://www.realoptions.org)

**Important Administrative Information** Cancellations made in writing by August 1 can be refunded, except for a 15% service charge. Only registrations made by May 15 are guaranteed and can be included on the list of participants. For registration and other general-type conference-related inquiries contact Eugenia at e-mail [conference.registration@realoptions.org](mailto:conference.registration@realoptions.org), tel +357 22893605. For information on local logistics regarding Porto or the University of Porto contact Prof. Paulo J. Pereira at [pjpereira@fep.up.pt](mailto:pjpereira@fep.up.pt), tel. +351 225 571 225.

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