

# Second Workshop on Game Theory in Energy, Resources and Environment

Thursday, November 20

8:00 – 8:45      **Registration**

8:45 – 9:00      **Welcome address**

**Invited talk 1, Chair: Michèle Breton**

Nancy et Michel-Gaucher Room

9:00 – 10:00      *Sustainability Screw: A Mathematical Perspective on Some Problems of Environmental Modelling*  
**Jerzy A. Filar**, CIAM, University of South Australia

10:00 – 10:30      Coffee break

**Session 1, Chair: Lucia Sbragia**

Nancy et Michel-Gaucher Room

10:30 – 12:30      *Sustainability by Self Enforced Co-Operation in Environmental Games*  
**Raimo P. Hamalainen**, Ilkka Leppanen, Systems Analysis Laboratory, Helsinki University of Technology, Finland

*Temporal Flexibility of Permit Trading - What if Pollutants are Correlated?*  
**Sophie Legras**, Georges Zaccour, GERAD, HEC Montréal, Canada

*Signalling Environmental Concerns in International Environmental Agreements*  
**Ana Espinola-Arredondo**, Felix Munoz, Washington State University, USA

*International Environmental Agreements and R&D linkage*  
**Lucia Sbragia**, Durham University, UK, Michèle Breton, GERAD, HEC Montréal, Canada

12:30 – 14:00      Lunch (Salon Deloitte)

**Session 2, Chair: Guiomar Martín-Herrán**

Nancy et Michel-Gaucher Room

14:00 – 16:00      *A Non-Markovian Differential Game of Exploitation of a Renewable Resource with Bertrand Competition*  
**Rodney Beard**, University of Alberta, Canada

*Nonrenewable Resource Extraction with Random Game Duration*  
**Ekaterina Shevkoplyas**, St. Petersburg University, Russia

*Farsightedness in Fishery Games*  
Michèle Breton, **Yevenunye Keoula**, GERAD, HEC Montréal, Canada

*Non-Renewable Resources and the Sustainability of the Economic Growth under Bilateral Trade*  
Francisco Cabo, **Guiomar Martín-Herrán**, Universidad de Valladolid, Spain,  
Maria Pilar Martinez-Garcia, Universidad de Murcia, Spain

16:00 – 16:30      Coffee break

**Invited talk 2, Chair: Alfredo García**

Nancy et Michel-Gaucher Room

16:30 – 17:30      *Deterministic and Stochastic Equilibrium Models in Energy*  
**Steven A. Gabriel**, Department of Civil and Environmental Engineering, University of Maryland, USA

## Friday, November 21

### Invited talk 3, Chair: Pierre-Olivier Pineau

Nancy et Michel-Gaucher Room

9:00 – 10:00 *Using Market Equilibrium Modeling to get Insights on Carbon Policies and the Electric Sector*  
**Benjamin F. Hobbs**, L. Fan, C. Norman, The Johns Hopkins University, USA, Y. Chen, University of California-Merced, USA, A. Liu, ICF, Inc., USA, J.S. Pang, University of Illinois, USA, J.Z. Schulkin, ISO-New England, USA

10:00 – 10:30 Coffee break

### Session 3, Chair: Stuart McDonald

Nancy et Michel-Gaucher Room

10:30 – 12:30 *State-Dependent Transfer Payments in Forest Conservation: A Dynamic Principal-Agent Approach*  
**Ngo Van Long**, McGill University, Canada

*Forest and CO<sub>2</sub> emissions: A Viable Approach*

**Pablo Andres Domenech**, Georges Zaccour, GERAD, HEC Montréal, Canada, Patrick Saint-Pierre, Université Paris Dauphine, France

*Discrete-time viability methods for sustainable management*

**Michel De Lara**, Université Paris-Est, France

*The Coupled Lake Game*

**Stuart McDonald**, Caltech, USA, Sharon O'Donnell, US Census Bureau, USA, Davis W. Dechert, University of Wisconsin, USA

12:30 – 14:00 Lunch (Salon Deloitte)

### Session 4, Chair: Olivier Bahn

Nancy et Michel-Gaucher Room

14:00 – 16:00 *International Incentive Regulation under Asymmetric Information*  
Per Joakim Agrell, **Mathias Lorenz**, LSM/CORE Université de Louvain, Belgium

*Quest for Hegemony among Countries and Global Warming*

**Justin Johnson Kakeu Kengne**, Université de Montréal, Canada

*A Primal-Dual Algorithm for Simulation-based Computation of Transmission Constrained Cournot Equilibrium*

**Alfredo García**, Himanshu Gupta, University of Virginia, USA

*Stochastic Control and Differential Game Models for the Timing of Climate Policies*

**Olivier Bahn**, GERAD, HEC Montréal, Canada, Alain Haurie, GERAD, ORDECSYS, Switzerland, Roland Malhamé, GERAD, École Polytechnique de Montréal, Canada

16:00 – 16:30 Coffee break

### Invited talk 4, Chair: Georges Zaccour

Nancy et Michel-Gaucher Room

16:30 – 17:30 *Optimum Choice of Tree Species and Harvesting Age*  
Skander Ben Abdallah, **Pierre Lasserre**, Département des sciences économiques, UQAM, Canada