



# Sébastien Duchêne

Postdoctoral research fellow, Université Côte d'Azur,  
and GREDEG (UMR 7321/CNRS)

Academic addresses:

GREDEG/CNRS,  
250 rue Albert Einstein,  
06560 Valbonne, France

Université Nice Sophia Antipolis  
Institut Supérieur d'Économie et de Management,  
Campus de St Jean d'Angely 1,

✉ [sebastien.duchene@gredeg.cnrs.fr](mailto:sebastien.duchene@gredeg.cnrs.fr)

@ : <http://www.sebastien-duchene.fr>

☎ 0033 6 31 24 27 05

📍 931 route de Faveyrolles, 83190 Ollioules

35 years old

## Research Interests

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### *Topics*

Market finance, behavioral and experimental economics, experimental finance, quantum models of cognition applied in decision theory, cognitive psychology, bounded rationality, environmental finance, socially responsible investment, collective choices and inequality

### *Methodologies used in my research*

Experimental economics, theory, econometrics of experimental data, philosophy of economics, agent-based models

## Professional Position

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Oct. 2017 sept. 2018	<b>Postdoctoral research fellow</b> under the supervision of Nobuyuki Hanaki, for the BEAM Project, « ANR ORA-Plus: Behavioral and Experimental Analyzes on Macro-Finance »
Jan. 2014 sept. 2017	<b>PhD in Economics and Finance</b> (Doctoral grant, fixed-term employment contract), Université Côte d'Azur, and GREDEG (UMR 7321/CNRS), Nice <b>Lecturer</b> in the Department of Economics and Management (teaching skills: Mathematics, Statistics, Finance, Economics, Economic conditions, Management)
2010-2013	<b>Corporate banker</b> (Coverage, Natixis CIB, BPCE company), Marseille In charge of the deals between companies and Natixis corporate and investment bank

2009-2010	<b>General Inspection</b> (BPCE company), Marseille Audit of the « Société Marseillaise de Crédit », of the « Banque Populaire Provençale Corse » Recommendations and reports for the Executive Management
2008-2010	<b>Portfolio Manager</b> (Equities and Bonds) (BPCE company), Paris Financial analysis, valuation and financial modeling, macroeconomic research, Portfolio Management of wealthy clients, market transactions, trading of stocks and bonds
2007-2008	<b>Economic research department</b> (Natixis CIB, BPCE company), Paris Macroeconomic research and asset allocation strategy
2005-2007	<b>Finance Department</b> (Apprenticeship contract, Banque Courtois, Société Générale company), Toulouse Middle office IR swaps, Forex (“vanilla” products and exotic derivatives), Balance sheet and cash management
2005	<b>London Stock Exchange</b> (internship, Axent Capital, hedge fund) Trading (Equities, bonds, commodities), investor Relations

## Education

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Dec. 2017	<b>Winner of the thesis prize</b> in economics from DESPEG doctoral school
Jan. 2014 Sept. 2017	<b>PhD in Economics and Finance</b> (Doctoral grant), Université Côte d’Azur and GREDEG (UMR 7321/CNRS) Defended on September 19 <sup>th</sup> , 2017 Thesis: Four essays on bounded rationality in behavioral economics and finance <b>Supervisors:</b> Dominique TORRE (Université Nice Sophia Antipolis) Éric GUERCI (Université Nice Sophia Antipolis) <b>Committee:</b> Nobuyuki HANAKI (Université Nice Sophia Antipolis, Chairman) Andrei KHRENNIKOV (Linnaeus University, Referee) Ariane LAMBERT-MOGILIANSKY (Paris School of Economics) Nathalie ORIOL (Université Nice Sophia Antipolis) Stéphane PALAN (University of Graz) Marc WILLINGER (Université de Montpellier, Referee)
2011-2012	Executive <b>Master of Finance</b> , Institut d’Études Politiques de Paris (ranked 2 <sup>nd</sup> )
2004-2007	<b>Master of Finance and Management</b> , specialization in financial markets, Toulouse Business School (in the top 10% students, no ranking achieved by the School)

2005-2007	Training center for the Banking Industry (Institut technique de banque)
2002-2004	Preparatory class, Lycée Pothier, Orléans

## Distinction and grants

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April 2018	Eligible to the “oral” of the CNRS competition in Economics and Management for being researcher
Dec. 2017	Winner of the thesis prize in economics from DESPEG doctoral school
2017-2018	Post-doctoral grant in the ANR project ORA-Plus
2014-2017	Doctoral research grant with an assistant teaching position at the Université Côte d’Azur

## Teaching

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2016-2017	Université Côte d’Azur (Licence 1 in Economics): Statistics (60h/ 2016-2017)
2014-2016	Université Côte d’Azur (Licence 3 in Management): Economic Conditions and Employment Policies (60h/ 2015, 45h/ 2016)
2015-2016	Université Côte d’Azur (Licence 1 in Economics): Probabilities (15h/ 2016)

## Research

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### **Articles in international peer-reviewed journals**

Duchêne Sébastien, Thomas Boyer-Kassem and Eric Guerci, (2017), « Une nouvelle approche expérimentale pour tester les modèles quantiques de l'erreur de conjonction, *Revue Économique*, 5: 16-31 (HCERES: A, CNRS: 2)

Boyer-Kassem Thomas, Sébastien Duchêne and Eric Guerci, (2016), « Quantum-like models cannot account for the conjunction fallacy », *Theory and Decision*, 81(4): 479-510 (HCERES: A, CNRS: 2)

Boyer-Kassem Thomas, Sébastien Duchêne and Eric Guerci, (2016), « Testing quantum-like models of judgment for question order effects », *Mathematical Social Sciences*, 80: 33-46 (HCERES: A, CNRS: 2)

### **Other publications**

Oriol Nathalie and Sébastien Duchêne, (forthcoming, 2018) « Too fast, Too furious? Une réflexion historique et contemporaine sur l’emballage des marchés financiers », *1024 – Bulletin de la société informatique de France*

Duchêne Sébastien, (forthcoming, 2018) « Lorsque la finance s'empare de l'enjeu climatique » (Recension/Book Review of *Climat un défi pour la finance* by Ducret and Scolan 2016), accepted for publication with minor revisions in *La Vie des Idées*

### ***Working or submitted papers/ Work in progress***

Duchêne Sébastien, Eric Guerci, Nobuyuki Hanaki and Charles Noussair, « The effects of short selling and borrowing on traders' expectations and market outcomes »

Bottasso Anna, Sébastien Duchêne, Eric Guerci, Nobuyuki Hanaki and Charles Noussair, « Financial Market Professionals' Higher Order Risk Attitudes »

Bottasso Anna, Sébastien Duchêne, Ido Erev, Eric Guerci and Nobuyuki Hanaki, « Financial Market Professionals' Under-investment and Under-diversification »

Boyer-Kassem Thomas, Sébastien Duchêne and Bart Engelen, « On discrimination in health insurance »

Duchêne Sébastien and Nobuyuki Hanaki, « Investors, forecasts and price dynamics of socially responsible companies complying with environmental rules, a laboratory experiment »

Duchêne Sébastien and Nobuyuki Hanaki, « How to increase the value of environmentally and socially responsible companies for investors and the price to pay? »

Rafaï Ismaël, Sébastien Duchêne, Eric Guerci, Ariane Lambert-Mogiliansky and Fabien Mathy, « A Dual Process in Memory: How to make an evaluation from complex and complete information? An experimental study »

Duchêne Sébastien, Eric Guerci and Nobuyuki Hanaki, « The effects of cumulative or random payment on traders' expectations and market outcomes in an experimental asset market with borrowing and short selling »

### ***New Works***

Basieva Irina, Jacob Denolf, Sébastien Duchêne, Eric Guerci, Andrei Khrennikov and Ismaël Rafaï, « Testing Boundaries of Applicability of Quantum Probabilistic Formalism to Modeling of Cognition in an experiment »

### ***Contributed talks in international peer-reviewed conferences***

« On discrimination in health insurance », International Network for Economic Methodology, San Sebastián, 28-30 August 2017

« The effects of short selling and borrowing on market prices and traders' behaviors. », Experimental Finance Conference, Université Côte d'Azur, Nice, 14-16 June 2017

« The effects of short selling and borrowing on market prices and on traders' expectations in an experimental asset market », Behavioral and Experimental Analyses in Macro-finance (BEAM) Workshop, Waseda University, Tokyo, 24 Feb. 2017

« The effects of short selling and borrowing on traders' expectations and market outcomes », Behavioral and Experimental Analyses in Macro-finance (BEAM) Workshop, Université Côte d'Azur, 30 Sept. 2016

« Memory vs mental picture: Can learning be quantum? An experimental study », 10<sup>th</sup> international conference on Quantum Interaction (QI 2016), San Francisco, 20-22 July 2016

« The effects of short selling and borrowing on traders' expectations and market outcomes », 7<sup>th</sup> French association of Experimental Economists (ASFEE) annual meeting, ESSEC Cergy-Pontoise, 9-10 June 2016

« Quantum-like Learning: a theoretical and experimental study », 2<sup>nd</sup> symposium on quantum models of cognition, MSHS du Sud-Est, 15 January 2016, Nice

« Testing quantum-like models of Judgment for the conjunction fallacy », 6<sup>th</sup> French association of Experimental Economists (ASFEE) annual meeting, Paris, 15-16 June 2015

« Testing quantum-like models of Judgment for the conjunction fallacy », 20<sup>th</sup> Workshop « on the Economic Science with Heterogeneous Interacting agents (WEHIA) », Nice Sophia Antipolis, 21-23 May 2015

« Testing quantum-like models of judgment for question order effects », symposium on quantum models of cognition, MSH Sud-Est, 8 January 2015, Nice

### ***Communication in seminars***

« The effects of short selling and borrowing on traders' expectations and market outcomes », Internal Seminar Montpellier Business School, 22 feb. 2018, Montpellier.

« The effects of short selling and borrowing on traders' expectations and market outcomes », Internal Seminar GREDEG – Université Côte d'Azur, 15 feb. 2018, Sophia Antipolis.

« The effects of short selling and borrowing on traders' expectations and market outcomes », Seminar of the University of Montpellier (LAMETA, LEEM), Montpellier, November, 30<sup>th</sup> 2017

« The effects of short selling and borrowing on traders' expectations and market outcomes », Workshop of the experimental economics laboratory of Montpellier (LEEM), Montpellier, 1<sup>st</sup> July 2016

« Quantum-like Models Cannot Account for the Conjunction Fallacy », Internal Seminar GREDEG, 15 Oct. 2015, Sophia Antipolis

« Quantum-like Learning: a theoretical and experimental study », Experimental Seminar, ISEM, 25 Sept. 2015, Nice

« Modèles quantiques de la cognition appliqués au jugement », Internal Seminar, MSH Sud-Est, 25 Nov. 2014, Nice

## Administration and research activities

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### **Organization of Conferences**

9<sup>th</sup> international conference of the French Association of Experimental Economics, Nice, 2018

Experimental Finance Conference (SEF), Nice, 14-16 June 2017

2<sup>nd</sup> symposium on « quantum models of cognition », MSHS- ISEM Nice Sophia Antipolis, 15 Jan. 2016

« 20th Annual Workshop on the Economic Science with Heterogeneous Interacting Agents » (WEHIA), Skema Nice Sophia Antipolis, 21-23 May 2015

« 32<sup>nd</sup> International Symposium on Money Banking and Finance », ISEM Nice Sophia Antipolis, 11-12 June 2015

1<sup>st</sup> symposium on « quantum models of cognition », MSH Sud-Est, 8 Jan. 2015

Seminar on « order effects quantum models of cognition », MSH Sud-Est, 25 Nov. 2014, Nice

### **Referee**

Journal: Journal of Mathematical Psychology

### **Memberships**

American Finance Association, European Finance Association, Society for Experimental Finance, French Association of Experimental Economics

### **Participation in research projects**

2016-2019	Member of ANR ORA-Plus Project: « Behavioral and Experimental Analyses on Macro-finance (BEAM) » (Nobuyuki Hanaki, GREDEG: head of the consortium of French, Dutch, German and Japanese teams)
2017-2018	Member of the project complexity: Quantum models of cognition (PI: Eric Guerci)
2015-2016	Member of the Project MSHS Sud-Est PEPS « Quantumtest », (PI: Eric Guerci, GREDEG)

## Languages and computer skills

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**Languages:** French: mother tongue  
English: fluent

**Computer skills:** R, STATA, Matlab, Latex, Ztree