

CURRICULUM VITAE

Stéphane VILLENEUVE

Born 25 February 1971
Married, Two children
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Education

- 2006: Habilitation à diriger les recherches: Optimal Stopping, Singular Control with application to finance.
- 1999: PhD in Applied Mathematics, University of Marne la Vallée.
Supervisor: Damien LAMBERTON.
- 1995: Master of Science in Statistics and stochastics models in Finance, Mention très bien Université Paris 7.

Position

- 2007-Professor of applied Mathematics, University of Toulouse 1 Capitole
- 2007-2008 Invited Professor, University of California Santa Barbara
- 2002-2007 Maître de Conférences en Mathématiques, University of Toulouse 1 Capitole.
- 1999-2002 Maître de Conférences en Mathématiques, University of Evry.

Administrative duties

- 2011- Responsible of the Master of science: Marchés et Intermédiaires financiers Toulouse School of Economics.
- 2008- Responsible of the Master of finance and actuarial studies IAE Toulouse.
- Member of the faculty council in economics, University of Toulouse.
- Member of the recruitment commission in applied mathematics (section 26) University of Toulouse 1 Capitole and INSA.
- Co-Responsible of the Master of science: *ingénierie mathématique*, University of Evry (1999-2002)

Ph-D Student

- Co supervisor of Lee Dinetan since september 2011.
- Supervisor of Zhang Lun september 2010.
- Co supervisor of Catherine Bobtcheff with Christian Gollier, CNRS researcher.

Affiliations and memberships

- 2011-2015 PES holder.
- 2011- Member of the executive committee of the Institut Louis Bachelier LABEX FCD.
- 2007- Coordinator of IDEI/SCOR chair *Marché des risques et création de valeurs*.
- 2007-2011 Academic Fellow of EUROPLACE Institute of Finance.
- Member of the ANR project Corporate Finance and Contract Theory ANR-09-BLAN-0358-01 presented by Jean-Paul Décamps
- Member of the ANR project Evamef presented by Adrien Blanchet

- Responsible researcher of the program *Finance d'entreprise, Régulation bancaire et Théorie de l'agence*, supported by the EUROPLACE Institute of Finance.
- Member of the scientific project (Nouvelles interfaces des mathématiques), NIM 185, *Options réelles et théorie de l'investissement*, supported by the CNRS.
- Member of the scientific program AMAMEF supported by the European Science Fondation.
- past member (1999-2002) of the open source project PREMIA, Ecole nationale des ponts et chaussées.
<http://www-rocq.inria.fr/mathfi/Premia/index.html>.

Publications

1. VILLENEUVE, S. (1999): Exercise regions of American options on several assets, *Finance and Stochastics*, vol 3, 295-322.
2. VILLENEUVE, S. et ZANETTE, A. (2002): Parabolic A.D.I. methods for pricing American options on two stocks, *Mathematics of Operation Research*, vol 27,121-149.
3. LOUBERGE, H; VILLENEUVE, S. et CHESNEY, M. (2002): Long term Risk Management of Nuclear waste, *Journal of Economic Dynamics and Control*, vol 27,157-180.
4. LAMBERTON, D. et VILLENEUVE, S. (2003): Critical Price near maturity for an American option on a dividend-paying stock, *Annals of Applied Probability*, vol 13, 800-815.
5. ERN, A.; VILLENEUVE, S. et ZANETTE, A. (2004): Adaptive finite element methods for local volatility European option pricing, *International Journal of theoretical and applied finance*, vol 7, 659-684.
6. DECAMPS, J.P., MARIOTTI T et VILLENEUVE, S. (2005): Irreversible investment under uncertainty, *Mathematics of Operation Research*, vol 30, No 2, 472-500.

7. DECAMPS, J.P., MARIOTTI T et VILLENEUVE, S. (2006): Irreversible investment in alternative projects, *Economic theory*, Vol 28, No 2, 425-448.
8. ROCHET, J.C et VILLENEUVE, S. (2005): Corporate Portfolio Management, *Annals of Finance*, Vol 1, No3, 225-243.
9. EKSTRØM, E. et VILLENEUVE, S. (2006): On the value of optimal stopping games. *Annals of Applied Probability* Vol. 16, No. 3, 1576-1596.
10. DECAMPS, J.P. et VILLENEUVE, S.(2007): Optimal dividend policy and growth option. *Finance and Stochastics* Vol 11, No 1, 3-27.
11. VILLENEUVE, S.(2007): On the threshold strategies for optimal stopping arising in Real option Theory. *Journal of Applied Probability* Vol 44, No1, 181-198.
12. LY VATH V., PHAM, H. et et VILLENEUVE, S. (2008):A mixed singular/switching control problem for a dividend policy with reversible technology investment. *Annals of Applied Probability* Vol 18, No 3,p 1164 1200.
13. DECAMPS, J.P., MARIOTTI T et VILLENEUVE, S. (2009): Irreversible investment under uncertainty, Erratum, *Mathematics of Operation Research*, Vol 34 No 1, p 255-256.
14. BOBTCHEFF, C. et VILLENEUVE, S. (2009): Technology Choice under Several Uncertainty Sources, *European Journal of Operation Research*, Vol 206, N3,p 586-600
15. BIAIS, B.; MARIOTTI, T.; ROCHET, J.C. et VILLENEUVE, S.(2010): Large Risk, Limited Liability and Dynamic Moral Hazard. *Econometrica*, Vol 78, N1, p 73-118.
16. ROCHET, J.C et VILLENEUVE, S. (2011): Liquidity Risk and Corporate Demand for Hedging and Insurance. *Journal of Financial Intermediation*, vol 3, p 300-323.
17. DECAMPS, J.P; MARIOTTI, T; ROCHET, J.C et VILLENEUVE, S. (2011): Free Cash-Flow, Issuance Costs and Stock Price Volatility. *Journal of Finance* Vol 66, p 1501-1544.

18. DECAMPS, J.P. et VILLENEUVE, S. (2011) Rethinking Dynamic Capital Structure Models with rollover debt, forthcoming *Mathematical Finance*

Contribution to books

1. VILLENEUVE S.: (2010) Alternating Direction Implicit Method , in Encyclopedia of Quantitative Finance, Wiley Sons Ltd: Chichester, p. 30-37.

Working papers

1. POUGET. S et VILLENEUVE, S. (2011): A mind is a difficult thing to change: confirmation bias in financial markets, formerly POUGET. S et VILLENEUVE, S. (2007): Price Formation with Confirmation Bias. accepted to European Summer Symposium in Financial Markets 2008, Gerzensee (Suisse) and the Annual Conference of the American finance Association (2010).
2. VILLENEUVE, S. et WARIN, X.(2011): Optimal Liquidity management and hedging in the presence of a non predictable growth opportunity, submitted.

Mimeo

- DECAMPS, J.P. et VILLENEUVE, S. (2008): on the Modeling of Debt maturity and Endogenous Default: a caveat.
- BOBTCHEFF, C. et VILLENEUVE, S. (2005): Irreversible investment in competitive projects. A new motive for waiting to invest. Working paper Toulouse University.
- DECAMPS, J.P. et VILLENEUVE, S. (2003): Investment under uncertainty, the viewpoint of outside financier. Proceedings of the French Finance Association, Lyon 2003.

Conferences and Seminar

- *As Participant*
 - Invited speaker: Optimal stopping, optimal control and Finance, University of Warwick July 2012.
 - Speaker Conference PWRI, Toulouse April 2012.
 - Invited speaker: Conference on credit and liquidity risks, University of Freiburg March 2012.

- Speaker *IMS annual meeting*, Miami August 2011.
 - Seminar, ORFE princeton may 2011.
 - Seminar, EPFL Lausanne, april 2011.
 - Seminar, ISFA LYON, march 2011
 - Speaker: *Modelling and managing the risk*, Paris janvier 2011.
 - Invited Speaker: Symposium of Optimal stopping with applications, Turku Finland June 2009.
 - Invited speaker: First FBF/IDEI Conference on Investment Banking and Financial markets March 2009.
 - Workshop on Dynamic Risk Sharing, Paris January 2009.
 - World Congress of the Bachelier Society, London July 2008
 - Invited speaker Congress of the American Mathematical Society, San Diego January 2008.
 - Financial Mathematics Seminar, Stanford University December 2007.
 - Financial Mathematics Seminar, University of California Santa Barbara October 2007.
 - World Congress on Real options, Berkeley June 2007.
 - Bachelier Seminar, IHP Paris May 2007.
 - Seminar of the school of mathematics, University of Manchester November 2006.
 - New mathematical methods in risk theory, Florence October 2005.
- *As Organiser*
 - *Risk Management after the Crisis II, Toulouse, France, 6-7 september 2011.*
 - *Stochastic Control and Optimal Stopping in Finance, Toulouse, France, 8-9 december 2011*
 - *Risk Management after the Crisis, Toulouse, France, 6-7 april 2011.*
 - *Integration of Extremal Events in Quantitative Risk Management, La Tour SCOR- La Dfense, Paris, France, march 2010.*

- First IDEI-SCOR Conference on "Risk Sharing and Finance, *Toulouse, France, 10-11 september 2009.*

Referee for:

Econometrica, Journal of Economic Theory, Journal of Finance, Review of Economic Studies, Finance and Stochastics, Annals of Applied Probability, Mathematics of Operation Research, Mathematical Finance, Stochastic Processes and their applications, Operation Research, Journal of Mathematical Economics, Mathematics and Financial economics International Journal of Theoretical and Applied Finance.

Teaching Experience

Toulouse University

- Stochastic control, MS Marché et Intermédiaires Financiers, (Lecture in english).
- Stochastic Processes, MS Toulouse School of Economics (Lecture in english)
- Derivatives, MS Marché et Intermédiaires Financiers, (Lecture in english).
- Computational Finance, Master of Finance, IAE Toulouse, (Lecture in english).
- Arbitrage in continuous time, Master of Finance, IAE Toulouse, (Lecture in english).
- Probability Theory, Licence Math-Eco Toulouse.
- Time Series, Magistère Economiste-Statisticien Toulouse.

University of Evry

- 2000-2002 Computational Finance, DESS Ingenierie mathématique Evry.
- 1999-2002 Mathematical models in Finance, DESS Ingenierie mathématique Evry.
- 2000-2002 Interest rate models, DESS Ingenierie mathématique Evry.

Ecole nationale des techniques avancées, Paris.
2000-2002 Mathematical models in Finance.

Ecole Normale supérieure, CACHAN
2000-2002 Applied probability in Finance.

Sorbonne University
2000-2002 Stochastic Calculus in Finance, master of finance.