

CURRICULUM VITAE

GÉRALDINE HEILPORN

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Citizenship: Belgian. Permanent resident of Canada since May, 2008

EDUCATION

- 10/08 Joint diploma of ‘Docteur en Sciences’ (Université Libre de Bruxelles, Belgium) and Ph.D. in Computer Science (University of Montreal, Canada).
Thesis: *Network Pricing Problems: complexity, polyhedral study and solution approaches*, under the supervision of Prof. M. Labbé, P. Marcotte et G. Savard.
- 06/05 ‘D.E.A.’ in mathematics (Ms.C. Math.), Université Libre de Bruxelles, Belgium.
- 06/04 Licenciée’ in mathematics (B.Sc. Math.) , Université Libre de Bruxelles, Belgium.
Specialization: probability, statistics and operational research.
High honors.
Thesis : *Un modèle d’optimisation pour le problème de gestion des délais dans les transports en commun*, under the supervision of Prof. M. Labbé.

EXPERIENCE

- 09/08 – Lecturer, HEC Montreal.
Optimization and modelling, Statistics.
- 10/08 – 08/10 Postdoctoral fellow, CIRRELT - HEC Montreal, under the supervision of Prof. J.-F. Cordeau and G. Laporte.
Research interests: Dial-A-Ride Problem with Stochastic Customer Delays, Cumulative Delivery Man Problem with Time Windows.
- 01/08 – 04/09 Teaching Assistant, HEC Montreal - Polytechnique Montreal.
Integral calculus in management sciences, probability and statistics.
- 09/04 – 01/07 Teaching Assistant, Mathematics Department, Université Libre de Bruxelles, Belgium.
Advanced Optimization, Optimization and modelling, probability and statistics, experimental design in statistics, mathematics.
- 09/02 – 06/04 Tutoring in mathematics, Université Libre de Bruxelles et various high schools in Brussels.

PRIZES AND SCHOLARSHIPS

- 10/08 – Postdoctoral scholarship from the Canada Research Chair in Distribution Management, HEC Montreal, Canada.
- 02/07 – 10/08 Ph.D. scholarship from the F.R.I.A. (National Fund of Scientific Research F.N.R.S., Belgium).
- 10/04 A.Sc.Br. (association of graduate students in science from Université Libre de Bruxelles) prize for the Master thesis.
- 06/03 Ruth et Joe Gani prize in probability.

PUBLICATIONS

G. Heilporn, M. Labbé, P. Marcotte and G. Savard, *A parallel between two classes of pricing problems in transportation and economics*, *Journal of Revenue & Pricing Management*, Volume 9, pp. 110-125, 2010.

G. Heilporn, M. Labbé, P. Marcotte and G. Savard, *A polyhedral study of the Network Pricing Problem with Connected Toll Arcs*, *Networks*, advance online publication 3 December 09; doi: 10.1002/net.20368.

G. Heilporn, *Network Pricing Problems: complexity, polyhedral study and solution approaches*, thèse de doctorat, Université Libre de Bruxelles, University of Montreal. Published by VDM Publishing House Ltd, ISBN 978-3-639-14688-2.

G. Heilporn, M. Labbé, P. Marcotte and G. Savard, *New formulations and valid inequalities for the Toll Setting Problem*”, INCOM 06, A Proceedings volume from the 12th IFAC International Symposium, Elsevier Ltd, 06.

L. De Giovanni, G. Heilporn and M. Labbé, *Optimization models for the delay management problem in public transportation*”, European Journal of Operational Research, Volume 189(3), pp. 762-774, 08.

G. Heilporn, J.-F. Cordeau and G. Laporte, *The Delivery Man Problem with Time Windows*”, in revision for *Discrete Optimization*. Research report CIRRELT-09-36.

G. Heilporn, M. Labbé, P. Marcotte and G. Savard, *Valid Inequalities and Branch-and-Cut for the Clique Pricing Problem*”, submitted to *Discrete Optimization*. Research report CIRRELT-09-24.

G. Heilporn, J.-F. Cordeau and G. Laporte, *An Integer L-Shaped Algorithm for the Dial-A-Ride Problem with Stochastic Customer Delays*, in redaction.

CONFERENCES AND TALKS

- 08/10 12th International Conference on Stochastic Programming, Dalhousie University, Halifax, Canada.
Talk : *An Integer L-Shaped Algorithm for the Single Vehicle Dial-A-Ride Problem with Stochastic Customer Delays*.
- 05/10 Optimization Days JOPT 10, HEC Montreal, Canada.
Talk : *An Integer L-Shaped Algorithm for the Single Vehicle Dial-A-Ride Problem with Stochastic Customer Delays*.
- 05/09 Optimization Days JOPT 09, HEC Montreal, Canada.
Talk : *The Cumulative One-to-Many Pickup and Delivery Problem with Time Windows: Polyhedral Analysis*.
- 06/08 Revenue Management and Pricing Section, VIIIth Annual Conference 08, University of Montreal, Canada.
Talk : *Polyhedral Study of a Pricing Problem*.
- 05/08 Optimization Days JOPT 08, Université Laval, Quebec, Canada.
Talk : *A polyhedral study of the Network Pricing Problem with Connected Toll Arcs*.
- 03/08 International Symposium on Combinatorial Optimization 08, Warwick University, Coventry, UK.

- Talk : *A polyhedral study of the Network Pricing Problem with Connected Toll Arcs.*
- 08/07 International Conference on Continuous Optimization 07, McMaster University, Hamilton, Canada.
Talk : *Theoretical properties of a Network Pricing Problem.*
- 07/07 Mixed-integer Programming Seminar MIP 07, University of Montreal, Canada.
- 05/07 Optimization Days JOPT 07, University of Montreal, Canada.
Talk : *On a Network Pricing Problem with Connected Toll Arcs.*
- 06/06 – 07/06 Advanced Mathematical Seminar SMS06, University of Montreal, Canada.
- 05/06 12th IFAC Symposium on Information Control Problems in Manufacturing INCOM 06, Ecole Nationale Supérieure des Mines, Saint-Etienne, France.
Talk : *Models and valid inequalities for the Toll Setting Problem.*
- 02/06 ROADEF conference, Lille, France.
Talk : *Modèles et inégalités valides pour le problème de tarification routière.*
- 09/05 ORP3 conference, Universidad Politecnica de Valencia, Valencia, Spain.
Talk: *Optimization models for the Delay Management Problem in public transportation.*
- 06/05 Minicourse on Structural Graph Theory, Eindhoven, The Netherlands.
- 01/05 Annual conference of the SOGESCI-BVWB, the Belgian Operations Research Society, Louvain-la-Neuve, Belgium.
Talk : *Optimization models for the Delay Management Problem in public transportation.*
- 09/04 ADONET Doctoral School in optimization, Cologne, Germany.

COMPUTING SKILLS

Basics	Word, Excel, PowerPoint, LaTeX
Programming	C++, Perl, ssh
Optimization	CPLEX, XPRESS

FIELDS OF INTEREST

- Mathematical and combinatorial optimization
- Mixed-integer and stochastic programming
- Vehicle routing problems
- Network pricing problems

REFERENCES

- Prof. Martine Labbé, Université Libre de Bruxelles, Belgium
- Prof. Gilbert Laporte, HEC Montreal, Canada
- Prof. Gilles Savard, Polytechnique Montreal, Canada