

CURRICULUM VITAE

Olivier Rousseau

Contact Information

Department of Mathematics and Statistics,
Faculty of Science, University of Ottawa
585 King Edward, Ottawa
ON K1N 6N5

(613) 562-5800 x3499
orous097 (at) uottawa (dot) ca

Education

2005–	Ph.D. Applied Mathematics	University of Ottawa
2003–2004	M.Sc. Mathematics	Université de Montréal (one year exchange at University of British-Columbia)
2000–2002	B.Sc. Mathematics	Université de Montréal

Prizes and grants

2007	Prize for the best communication, 4th Montréal Scientific Computing Days, Montréal, 2007.
2006	GIREF Prize for the best communication in Numerical Analysis, Colloque Panquébécois ISM, Université Laval.
2006	NSERC BESC D2 (Canada Graduate Scholarship for Ph.D. Degree).
2006	National Excellence Award, University of Ottawa.
2005	Strategic Areas of Development Award, University of Ottawa.
2005	Special Recruiting Scholarship, University of Ottawa.
2005	Honour's list of the Dean (for Master's Thesis), Université de Montréal.
2003	Excellence Grant, University of British-Columbia.
2002	NSERC PGSA (Master's Degree).
2002	Exchange Scholarship, Université de Montréal.
2001, 2002	NSERC Summer Research Award.
2000–2002	Palmarès de la Doyenne, offered to the best 30 students of the Faculty of Arts and Sciences.

Work Experience

2002–	Teaching Assistant, Université de Montréal, University of British-Columbia, University of Ottawa.
2004	Teacher, Mathematics, Collège Jean-de-Brébeuf, Montréal.
2000–2002	Tutor for College and University students.

Relevant Skills

Languages :	French and English, written and spoken.
Computer :	Strong programming skills in C, C++, Perl, HTML.

Research Projects :

- 2005– *Geometrical Modeling of the Heart*, Ph.D. Project, University of Ottawa.
With Yves Bourgault and Paul-Eugène Parent. Automatic methods are developed to denoise and extract information of interest from medical image datasets. Partial Differential Equations Methods are used.
- 2007 *Analysis of Electrocardiograms*, Industrial Workshop, CRM (Mathematical Research Center), Montréal.
Automatic detection of heart beat position from electrocardiogram signals with Analytical Wavelets.
- 2005 *Analysis of MicroArray datasets*, University of Ottawa.
With André Dabrowski. Topological analysis of sparse high dimensional datasets coming from DNA MicroArrays.
- 2002–2003 *Properties of the Morse-Novikov Complex*, M.Sc. Project, Université de Montréal.
With Octav Cornea. Extension of Homology properties and operations to the Morse-Novikov Complex using Morse Theory.

Talks

During my studies, I have given over forty mathematical talks at various levels ranging from vulgarization talks to specialized presentations. I list a few titles here :

- 2007 *An Iterative Active Contours Algorithm Applied to Heart Segmentation*, 4th Montréal Scientific Computing Days, Montréal.
- 2006 *Geometrical Modeling of the Heart*, Colloque Panquébécois ISM, Université Laval.
- 2005 *On Some Properties of the Morse-Novikov Complex*, Nonlinear Analysis Seminar, Université de Montréal.
- 2004 *Combinatorial Curiosities*, Graduate Seminar, Université de Montréal.
- 2003 *On a Generalized Roll Theorem*, Graduate Seminar, University of British-Columbia.
- 2002 *Ehrhart Polynomial and Applications*, LaCIM Seminar (Laboratory of Combinatorics and Mathematical Computer Sciences), UQÀM.

Other Activities

- 2004 Organizer of the Colloque Pan-Québécois ISM des Étudiants Avancés en Mathématiques, Université de Montréal.
- 2002–2003 Organizer of the Graduate Seminar, University of British-Columbia.