

# Curriculum vitae - François Lalonde

François LALONDE  
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## EDUCATION

B. Sc. (Physics), Université de Montréal, 1976  
Propedeutics (Mathematics), Université de Montréal, 1977  
M. Sc. (Logic and computer sciences, NP-completeness), Université de Montréal, 1979  
Doctorat d'Etat (Differential topology), Centre d'Orsay, Université de Paris-Sud, 1985.

## HONOURS

The 2015 Jean-Morlet Chair, awarded by the Centre International de Rencontres Mathématiques (CIRM, Luminy, France), the Centre National de la Recherche Scientifique (CNRS), the Société Mathématique de France (SMF), the City of Marseille and the Université Aix-Marseille.

Invited speaker, International Congress of Mathematicians 2006, Madrid, where I presented mainly my joint work with O. Cornea.

The 2005 Stanford Distinguished Lecture Series.

The 2005 Floer Memorial Lecture (Berkeley).

“Clusters meet polyfolds”, one-week international workshop studying the relations between the Cornea-Lalonde theory of clusters and the Hofer-Wysocki-Zehnder theory of polyfolds, org. K. Wherhheim (MIT), held at the Institute for Advanced Study (Princeton), 2004.

Fellow of the royal Society of Canada, since 1997 (declined January 7th, 2015).

Killam Fellow, 2000-2002.

Canada Research Chair since 2001 when this honour was first introduced by the Prime Minister of Canada.

Fellow of the Fields Institute, since 2001 when this honour was first introduced.

ICM 1998: My works with Dusa McDuff were presented in her plenary address at the International Congress of Mathematicians, 1998, Berlin.

## POSITIONS

Holder, Canada Research Chair in Symplectic Geometry and Topology, Université de Montréal, since March 2001.

Professor, Département de Mathématiques et de Statistique, Université de Montréal, since March 2001.

Director, Centre de recherches mathématiques (CRM), 2004–2008, and 2011–2013.

Director, Institut des Sciences Mathématiques (including Concordia, McGill, Montréal, UQAM, Laval and Sherbrooke universities), 1996 - 2000.

Professor (1991–2001) and NSERC University Research Fellow (1985–1991), Département de Mathématiques, Université du Québec à Montréal.

## INVITED POSITIONS

Professeur des universités de France, classe exceptionnelle, CIRM, Luminy, 2015.

Professeur des universités de France, Ecole Normale Supérieure, Lyon, 2008–2009.

Invited Professor, Stanford University, Summer–Fall 2005.

Chercheur invité CNRS, Université d’Aix-Marseille, Spring 2002

Chercheur invité CNRS, Ecole Polytechnique (France), Fall 2001 – Winter 2002

Invited scholar, Fields Institute, 2000–2001.

Invited scholar, Tel Aviv University, Fall 1997 and Spring 1999.

Chercheur invité CNRS, Université Louis-Pasteur, Strasbourg, May–June 1990.

Visiting scholar, Department of Mathematics, Harvard University, 1989–1990.

Professeur associé, Centre d’Orsay, Université de Paris-Sud, 1984–85.

Chercheur invité, IHES, 1983–85.

## PUBLICATIONS

Note: Our Cluster research project with F. Charest and O. Cornea is still ongoing: our former Ph.D. student François Charest has published the first step (monotone case) and we are working on the general case. These papers are not mentioned here. The cluster project has also inspired the work of Biran–Cornea on the pearl complex, published recently in a series of papers in *Geometry & Topology* and in the *CRM Proceedings and Lecture Notes*.

*Articles and recent preprints*

F. Lalonde, New challenges in Symplectic Topology, invited paper 2014 to appear in *Comptes rendus de l'Académie des Sciences du Canada*.

F. Lalonde and E. Shelukhin, The complete proof of the weak conjecture on genus  $g$ -areas, preprint 2014, submitted to *ERA – AMS*.

F. Lalonde and Y. Savelyev, On the Injectivity radius in Hofer's geometry, preprint 2014, to appear in *ERA – AMS*.

E. Kerman and F. Lalonde, Minimality in the Hofer geometry of Lagrangians, preprint 2013.

F. Lalonde and A. Teleman,  $g$ -areas and commutator length, *International Journal of Mathematics* **24** (2013).

S. Hu and F. Lalonde, An example concerning Hamiltonian groups of self product, part I, Special volume in the honour of Augustin Banyaga, *African Diaspora Journal of Mathematics* **14** (2012).

S. Hu and F. Lalonde, An example concerning Hamiltonian groups of self product, part II, Special volume in the honour of Augustin Banyaga, *African Diaspora Journal of Mathematics* **14** (2012).

S. Hu, F. Lalonde and R. Leclercq, Homological Lagrangian monodromy , *Geometry and Topology* **15** (2011), 1617–1650.

S. Hu and F. Lalonde, A relative Seidel morphism and the Albers map, *Trans. Amer. Math. Soc.* **362** (2009), 1135-1168.

S. Anjos, F. Lalonde and M. Pinsonnault, The homotopy type of the space of symplectic balls in rational ruled 4-manifolds, *Geometry and Topology* **13** (2009), 1177–1227.

S. Anjos and F. Lalonde, *The full homotopy type of symplectic balls in  $S^2 \times S^2$  above the critical value*, preprint arXiv:math/0406129, 23 pages, 2008.

S. Hu and F. Lalonde, Anti-symplectic involution and Maslov indices, preprint, 18 pages, 2008

S. Anjos and F. Lalonde, The topology of the space of symplectic balls in  $S^2 \times S^2$ , *C. R. Acad. Sci. Paris, Ser. I* **345** (2007) 639-642.

F. Lalonde, *Lagrangian submanifolds: from the local model to the cluster complex*, Proceedings of the International Congress of Mathematicians, Madrid 2006, published by the European Mathematical Society, 2006, pp 456 – 477.

O. Cornea and F. Lalonde, Cluster Homology, ArXiv Math.SG/0508345, 56 pages, 2006.

O. Cornea and F. Lalonde, Cluster homology: an overview of the construction and results, *ERA – AMS* 12 (2006), 1 – 12.

F. Lalonde, A field theory for symplectic fibrations over surfaces with applications, *Geometry and Topology* **8** (2004), 1189 – 1226.

F. Lalonde and M. Pinsonnault, The topology of the space of symplectic balls in rational 4-manifolds, *Duke Mathematical Journal* **122** (2004), 347–397.

- E. Kerman and F. Lalonde, Length minimising paths for symplectically aspherical manifolds, *Ann. Inst. Fourier* **53** (2003), 1503–1526.
- F. Lalonde and D. McDuff, Symplectic structures on fiber bundles, *Topology* **42** (2003), 309 – 347.
- F. Lalonde and M. Pinsonnault, Groupes d’automorphismes et plongements symplectiques de boules dans les variétés rationnelles, *C.R. Acad. Sci. Paris, Ser. I* **335** (2002), 931 – 934.
- F. Lalonde and D. McDuff, Cohomological properties of ruled symplectic structures on manifolds, *Mirror Symmetry IV*, AMS/IP Studies in Advanced Mathematics **33** (2002), 79 – 99.
- D. Gatiën and F. Lalonde, Holomorphic cylinders with Lagrangian boundaries and Hamiltonian dynamics, *Duke Mathematical Journal* **102** (2000), 485 – 511.
- F. Lalonde, D. McDuff and L. Polterovich, Topological rigidity of Hamiltonian loops and quantum homology, *Inventiones Mathematicae* **135** (1999), 369–385.
- F. Lalonde et C. Pestieau, Stabilisation of symplectic inequalities and applications, in *Amer. Math. Soc. Translations, Series 2, Volume 196* (1999) pp. 63-72.
- F. Lalonde, D. McDuff and L. Polterovich, *On the Flux conjectures*, in CRM Proceedings and Lecture Notes, American Mathematical Society, Volume **15** (1998), 69–86.
- F. Lalonde and L. Polterovich, Symplectic diffeomorphisms as isometries of Hofer’s norm, *Topology* **36** (1997), 711–728
- F. Lalonde and D. McDuff, Positive paths in the linear symplectic group, *The Arnold-Gelfand seminar*, Birkhauser, 1997, pp 1–20.
- F. Lalonde, *Energy and capacities in symplectic topology*, in: W. H. Kazez (ed.), Geometric Topology, Studies in Advanced Mathematics, vol. 2, American Mathematical Society and International Press, 1997, 328–374.
- F. Lalonde, *New trends in symplectic geometry*, invited survey in the new series of C.R. Math. Rep. Acad. Sci. Canada, vol. 19 (2), 1997, 33-50.
- F. Lalonde, *J-curves and symplectic invariants*, in: J. Hurtubise and F. Lalonde (eds), Proceedings of the NATO Summer Advanced Institute (SMS) on Gauge Theory and Symplectic Geometry Université de Montréal 1995, Kluwer Academic Publishers, Dordrecht, 1997.
- F. Lalonde and D. McDuff, The classification of ruled symplectic 4-manifolds, *Mathematical Research Letters* **3** (1996), 769–778.
- F. Lalonde and D. McDuff, *J-holomorphic curves and the classification of rational and ruled symplectic 4-manifolds*, in: C.B. Thomas (ed.), Symplectic and Contact Geometry, Proceedings of the Newton Institute Special Year on Symplectic Geometry, Cambridge University Press, 1996, pp 1–40.
- F. Lalonde and D. McDuff, Local Non-Squeezing Theorems and Stability, *Geometric and Functional Analysis* **5** (Special volume in the honor of M. Gromov) (1995), 364 – 386.
- F. Lalonde and D. McDuff, Hofer’s  $L^\infty$ -geometry: energy and stability of Hamiltonian flows part I, *Inventiones Mathematicae* **122** (1995), 1 – 34.

F. Lalonde and D. McDuff, Hofer's  $L^\infty$ -geometry: energy and stability of Hamiltonian flows part II, *Inventiones Mathematicae* **122** (1995), 35 – 69.

F. Lalonde and D. McDuff, The geometry of symplectic energy, *Annals of Mathematics* **141** (1995), 349 – 371.

F. Lalonde, Isotopy of symplectic balls, Gromov's radius, and the structure of irrational ruled symplectic 4-manifolds, *Mathematische Annalen* **300** (1994), 273-296.

M. Audin, F. Lalonde and L. Polterovich, *Symplectic rigidity: Lagrangian submanifolds*, in: M. Audin and J. Lafontaine (eds.), *Holomorphic Curves in Symplectic Geometry*, Progress in Mathematics, vol. 117, Birkhauser, 1994, pp. 271-322.

F. Lalonde, Hamiltonian Collapsing of Irrational Lagrangian Submanifolds with Small First Betti Number, *Communications in Mathematical Physics* **149** (1992), 613-622.

F. Lalonde, Suppression lagrangienne de points doubles et rigidité symplectique, *Journal of Differential Geometry* **36** (1992), 747-764.

F. Lalonde et J.-C. Sikorav, Sous-variétés lagrangiennes et lagrangiennes exactes des fibrés cotangents, *Commentarii Mathematici Helvetici* **66** (1991), 18-33.

F. Lalonde, Classes caractéristiques isotropes, *Mathematische Annalen* **285** (1989), 343–351.

F. Lalonde, *Quelques invariants topologiques en géométrie symplectique*, in: J.M. Morvan and L. Verstraelen (eds.), *Geometry and Topology of Submanifolds*, Proceedings of the Meeting at Luminy, May 1987, pp. 149–156, World Scientific 1989.

F. Lalonde, Homologie de Shih d'une submersion (homologies non-singulières des variétés feuilletées) Mémoire SMF (nouvelle série) no. 30, Supplément au *Bulletin de la Société Mathématique de France* **115** (1987), 101 pages.

F. Lalonde, Homologie de Shih: Définition et Propriétés, *Canadian Journal of Mathematics* **38** (1987), 748–768.

F. Lalonde, Homologie de Shih d'une submersion, *C.R. Acad. Sc. Paris* **299** (1984), Série I, 1025–1028.

F. Lalonde, Homologie de plongements dans les variétés différentiables, *C.R. Acad. Sc. Paris* **299** (1984), Série I, 987–990.

F. Lalonde, Homologie de plongements dans les espaces euclidiens, *C.R. Acad. Sc. Paris* **297** (1984), Série I, 659–62.

F. Lalonde, Le problème d'étoiles pour graphes est NP-complet, *Discrete Mathematics* **33** (1981), 271–80.

### *Books and proceedings*

M. Abreu, F. Lalonde, L. Polterovich eds, *New Perspectives and Challenges in Symplectic Field Theory*, The CRM Proceedings and Lecture Notes", vol. 49, American Mathematical Society, 2009, 342 pages.

P. Biran, O. Cornea and F. Lalonde (eds), *Morse theoretical methods in symplectic topology and non-linear analysis*, Proceedings of the NATO Advanced Study Institute (Montréal, 2004), Kluwer Academic Publishers, Dordrecht, 2005.

Y. Eliashberg, B. Khesin and F. Lalonde eds, *Symplectic and Contact Topology: Interactions and Perspectives* (Proceedings of the workshop on "Symplectic topology and higher dimensional Gauge invariants" held at the Fields Institute in March-April 2001), Fields Institute Communications **35**, AMS, 2003.

F. Lalonde (ed.), *Proceedings of the CRM Workshop on Geometry, Topology and Dynamics Montréal 1995*, CRM Proceedings and Lecture Notes **15**, AMS 1998.

J. Hurtubise and F. Lalonde (eds), *Gauge Theory and Symplectic Geometry*, Proceedings of the NATO Summer Advanced Institute on Gauge Theory and Symplectic Geometry (Montréal 1995), Kluwer Academic Publishers, Dordrecht, 1997.

#### SELECTED LIST OF INVITED LECTURES AND ADDRESSES OVER THE LAST FIFTEEN YEARS

(my position as director of the CRM forced me to decline all invitations in 2006, 2007, 2008 and 2012, except the ICM invitation)

Invited talk, Seminar on Symplectic Topology and Dynamical Systems, Tel Aviv University, 2014.

Colloquium talk, University of Toronto, January 2014.

Closing one-hour address, The International Conference on Conservative dynamical systems and Symplectic geometry, IMPA, Rio de Janeiro, September 2013.

Plenary address, Annual Meeting of the Canadian Mathematical Society, 2011.

One-week doctoral mini-course at Institut Fourier, Programme on Holomorphic Methods in Geometry, June 2009.

The Beverly Sackler Distinguished Lecture Series in Exact Sciences, Tel Aviv University, March 2009.

Talk at the Séminaire de Géométrie et dynamique, ENS-Lyon, February 2009.

Invited plenary speaker, European Congress of Symplectic Geometry, Strasbourg, January 2009.

Invited speaker, International Congress of Mathematicians, Madrid, 2006.

The 2005 Distinguished Lecture Series, Stanford University.

The 2005 Floer Memorial Lecture (Berkeley–Davis–SantaCruz–Stanford).

Series of lectures (given jointly with O. Cornea) at the Institute for Advanced Study, Princeton, October 2005.

Invited plenary speaker, Great Lakes Geometry Conference, Perimeter Institute, March 2005.

Invited plenary address, Annual Meeting of the Canadian Mathematical Society, McGill, 2004.

Plenary speaker, Conference on Symplectic Topology, Stare Jablonki, Poland, July 2004.

Invited speaker, MSRI (Mathematical Sciences Research Institute), Workshop on Symplectic Geometry and Mathematical Physics, March 2004.

Invited talk at the 2004 Clifford Conference on Holomorphic Curves: Algebra, Geometry, and Analysis, Tulane University, March 2004.

Conférence plénière d'ouverture, Congrès annuel de l'Association mathématique du Québec, octobre 2003.

Invited talk, Workshop in Symplectic topology and dynamics, ETH, Zurich, May 2003.

Société mathématique du Canada, Réunion d'hiver 2002, deux conférences: l'une aux spécialistes et l'autre pour les étudiants gradués, décembre 2002.

Conférence invitée au Congrès Topologie symplectique et théorie de Morse, Lille, août 2002.

Conférence invitée au Colloque en l'honneur de V. Schwarzbach, Université Claude Bernard, Lyon, juin 2002.

Suite de trois conférences de recherche, CNRS et Université d'Aix-Marseille, mars 2002.

Conférencier au Colloquium de l'Institut Fourier de Grenoble, février 2002.

Conférencier au Colloquium de l'Université de Paris, octobre 2001.

Conférencier au Colloquium de l'Université Louis-Pasteur, Strasbourg, novembre 2001.

Suite de sept conférences de recherche, Centre mathématique de l'Ecole Polytechnique de Paris (Palaiseau), septembre et octobre 2001.

Invited talk, Workshop on contact and symplectic geometry, Lorentz Center, Leiden, Holland, August 2001.

Series of five lectures, Instituto Superior Tecnico, Lisbon, Portugal, July-August 2001.

Invited talk, Workshop on Hamiltonian dynamics and Non-linear Analysis, Rinberg Castle, Bavaria, June 2000.

Closing plenary address (Canadian side), First Canada-China Mathematical Congress, Beijing, 1999.

## SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

49 IN TOTAL

*Supervisor or co-supervisor of the following 21 postdoctoral fellows:*

Luis Haug (Ph.D. ETH, Zurich 2014)

Weiwei Wu (Ph.D. Madison, Wisconsin 2014)

Michael Brandenbursky (Ph.D. Technion 2012)

Fedor Soloviev (Ph.D. Courant Institute, NYU, 2011)

Egor Shelukhin (Ph.D. Tel Aviv, 2012)

Yakov Savelyev (Ph.D. SUNY Stony Brook, 2010)

Roman Golovko (Ph.D. UC San Diego 2010)

Samuel Lisi (Ph.D. Stanford 2006), now researcher at Stanford

Ozgur Ceyhan (Ph.D. Strasbourg and Bonn 2006), now researcher at University of Amsterdam

Basak Gurel (Ph.D. UC at Santa Barbara 2006), now professor at Rice University

Shengda Hu (Ph.D. Madison, 2003), now professor at Laurier University, Waterloo.

Alexander Ivrii (Ph.D. Stanford, 2003), now at Technion University, Israel.

David Gay (Ph.D. Berkeley, 2003), now professor at the University of Cape Town, South Africa.

Ramin Mohammadalkahani (Ph.D., Toronto, 2002).

Diego Matessi (Ph.D. Warwick, 2001), now professor at Università del Piemonte Orientale

Tadashi Tokieda (Ph.D. Princeton, 1996), now Senior lecturer at the University of Cambridge.

Jennifer Slimowitz (Ph.D. SUNY Stony Brook, 1998), now professor at Rice University.

David Th eret (Doctorat Paris, 1996), now teaching at Universit e de Montpellier (France)

Maia Fraser (Ph.D. Stanford, 1994), now working in a finance company in Zurich.

Seguei Makar-Limanov (Ph.D. Stanford, 1994), now working in a New York firm in finance.

Jacques Rioux (Ph.D. Cornell, 1986, co-supervision and financial support), now professor at Universit e Laval

*Advisor of the following 27 Ph.D. and M.Sc. theses:*

Jordan Payette, currently under my supervision at the Ph.D. level.

No e Aubin-Cadot, currently under my supervision at the Ph.D. level.

Laurence Boulanger, currently at the Ph.D. under joint supervision with V. Apostolov.

Fran ois Charest, Ph.D. 2012 (joint supervision with O. Cornea), now NSERC postdoctoral fellow at Columbia University.

Anthony Rieser, Ph.D. 2010 under joint supervision with O. Cornea, and now postdoctoral fellow at Technion (Israel).

Cl ement Hyvrier, Ph.D. 2008 under my supervision, now postdoctoral fellow at Upsalla University, Sweden.

Anik Souli ere, Ph.D. 2006 (joint supervision with T. Tokieda), now professor at College Jean de Br ebeuf



Martin Pinsonnault, Ph.D. 2002 under my supervision, now tenure professor at the University of Western Ontario.

Charles Pestieau, Ph.D. 1998 under my supervision, now working for a British company specialised in the modelisation of physics laws

Daniel Gatien, Ph.D. 1996 under my supervision, postdoctoral fellow at McMaster and now professor at John Abbott College

Dustin Connery-Grigg, currently under my supervision at the Master level.

Noé Aubin-Cadot, M.Sc. 2013 under my supervision

Jordan Payette, M.Sc. 2013 under my supervision, did a joint Physics-Math bachelor degree with almost perfect grades, ranked third in Canada at the national competition of physics organized by the Canadian Association of Physicists in 2012.

Esteban Herrera, M.Sc. 2011 under my supervision.

Martin Frankland (Canada Governor general's Medal awarded for the best academic results at the bachelor level at University of Montreal), M.Sc. 2006 under my supervision, now student at MIT

Pierre-Paul Delisle, M.Sc. 2002 under my supervision, now consultant for Motorola, Montreal.

Frédéric Rochon, M.Sc. 2001 under my supervision, scholar at University of Toronto (Recipient of one of the six 2002 Fellowships Julie-Payette awarded by NSERC in Canada; awarded the 3rd prize in the 1999 national competition of the Canadian Association of physicists; nominated by MIT for a Clay fellowship), tenure-track professor at the Australian National University (ANU), and now Canada Research Chair in mathematics at UQAM.

Martin Lauzon, M.Sc. 2001 under my supervision.

Benoit Charbonneau M.Sc. 1999 (co-supervision), (M.Sc. Thesis Prize, ACFAS 1999) now professor at University of Waterloo.

Martin Pinsonnault, M.Sc. 1996 under my supervision, see above

Daniel Bussi eres, M.Sc. 1996 under my supervision, now in computer sciences

Bernard Kamt e, M.Sc. 1996 under my supervision (joint supervision with R. Sharpe, U of T), now at the INRS- Communications

Charles Pestieau, M.Sc. 1993 under my supervision, see above

Daniel Gatien, M.Sc. 1992 under my supervision, (Canada Governor general's Medal awarded for the best academic results at the bachelor level at Concordia University), see above

Michel Milot, M.Sc. 1992 under my supervision, now professor at John Abbott College

Andr e Lebel, M.Sc. 1990 under my supervision, Ph.D. at Warwick, postdoc at McGill and now professor at St-Lawrence College (Canada Governor general's Gold Medal awarded for his master under my supervision)

Simon Richard, M.Sc. 1989 under my supervision, Ph.D. at SUNY, Stony Brook, 1990-96, now member of the executive board of a New York based gas company

Patrice Castonguay, M.Sc. 1988 under my supervision, now professor at Coll ege Andr e-Laurendeau.

## SUPERVISION OF UNDERGRADUATE SUMMER RESEARCH FELLOWS

13 IN TOTAL

Sébastien Leclaire (UdeM), Summer 2004

Louis-Xavier Proulx (UdeM), Summer 2006, now Ph.D. student in Applied mathematics.

Michael McBreen (McGill), Summer 2007, now NSERC fellow and student at Princeton

Aurlien Bosch (ENS-Cachan), Summer 2007

Camille Tardif (ENS-Cachan), Summer 2007

Michael McBreen (McGill), Summer 2008, see above

Jui-Chun Liao (UdeM), Summer 2010

Jordan Payette (UdeM), Summer 2010, see above

Vincent Létourneau (UdeM), Summer 2012, now Master's student under Octav Cornea.

Michael Morin (UdeM and McGill), Summer 2012, perfect score at the B. Sc. (A+ in all of his courses, then student of Malloney at McGill in String Theory, and now at the Ph.D. at McGill in Biophysics).

Dominique Rathel-Fournier (UdeM), Summer 2014

Marie-Christine Grou-Robitaille (UdeM), Summer 2014

Francis Huot-Chantal (UdeM), Summer 2014

## SCIENTIFIC LEADERSHIP AND COMMITTEES

a brief selected list, not mentioning local university tasks

Director, Centre de Recherches Mathématiques, 2004-2008 and 2011-2013. The director of the CRM is both the director of the scientific program and the administrative director. A few hundreds workshops, congresses and summer schools were organized under my mandates. Ten laboratories with 250 researchers are under the umbrella of the CRM. *At the last major 5-year competition in 2008 in Canada, the CRM under my directorship ranked second amongst the 65 applications from all major scientific and engineering resources of the country. The first place was attributed to the Chalk River Nuclear Installations, which is not a university-based organization.*

Editor of the following journals and monographs series: *Mathematische Zeitschrift* (2010 –), *Canadian Journal of Mathematics* (1999-2005), *Canadian Bulletin of Mathematics* (1999-2005), *Comptes rendus of the Academy of Sciences of Canada* (1997 –), *Treatises in Mathematics* edited by AKPeters (2005-2010), *CRM-AMS Monographs series* (2004 –), *CRM-AMS Proceedings and Lecture Notes Series* (2004 –), *CRM-Springer Series in Mathematical Physics* (2004 –).

Founder in 2013, with C. Genest (McGill) and C. Levesque (Laval), of the journal *Annales mathématiques du Québec* published by Springer.

Chair of the search committee for the next editor-in-chief of *Annales mathématiques du Québec*.

Member of the Committee in charge of evaluating IRMA, Strasbourg, the first CNRS laboratory in France, for the ANR (Agence Nationale de la Recherche, France), 2008, with Beauville, Laumon and Procesi.

Founder, with Gilles Brassard (CS, Montreal) and Michael Hilke (Physics, McGill) of the Institute in Quantum informatics INTRIQ, Canada, 2006.

Member of the Scientific committee of the Banff Research Station (BIRS), 2004 – 2006.

Member of the Scientific Advisory Committees of both the Fields Institute (Toronto) 1998-2002 and the Centre de Recherches Mathématiques (Montréal) 1996-2001, 2004-2008 and 2011-2013.

Member of the Advisory Committee of AARMS (Atlantic Association for Research in the Mathematical Sciences), since the foundation of this committee in 2001.

Scientific director, Séminaire de Mathématiques Supérieures, the only NATO Advanced Scientific Institute held every year, 2002-2008.

Member of the Sygne Committee, Royal Society, 1998–2003.

Founder of CIRGET (Centre Interuniversitaire de recherche en géométrie différentielle et topologie) in 1997, director until 2001 and member since its foundation. CIRGET is one of the main research groups in mathematics in Canada: its membership includes 15 professors in four universities, about 40 graduate students and a dozen postdoctoral fellows. The Center is directly responsible for the organisation and funding of a large spectrum of activities (seminars, workshops, postdoctoral program, relations with students at all levels). See <http://www.cirget.uqam.ca>

Holder, Canada Research Chair in Symplectic topology, 2001-

Director, Institut des Sciences Mathématiques (Concordia, Laval, McGill, Montréal, Sherbrooke and UQAM), 1996-2000. During that mandate, Laval and Sherbrooke joined the ISM as full members; the postdoctoral programme and the Colloquium of Montreal were set up. We created the Colloque pan-québécois des étudiants avancés. With the help of the coordinator, we set up the Carl Herz Foundation, the Carl Herz doctoral Prize, initiated a full program of relations between the universities and the colleges. The annual reports during my mandate are available at <http://www.math.uqam.ca/ISM/>.

Chair of the NSERC Grants Selection Committee in pure and applied mathematics (GSC 336), 1997-98.

Member of the Bureau de direction, Centre de Recherches Mathématiques (Montréal) 1991-1995.

Member of NSERC's Steering Committee in charge of submitting the Reallocation document for mathematics in Canada for the period 1999-2003. As chair of the Grant selection committee 336, I was member ex officio of this committee which succeeded in substantially improving the situation of mathematics in Canada for the first time.

Member of NSERC's Selection Committee "University Research Fellows", 1988-1992.

Member of NSERC's Selection Committee "Women Faculty Awards", 1991-1992.

Member of NSERC's Selection Committee "Research Grants GSC 336", 1995-98.

Member of the Advisory and Liaison Committees with NSERC, 1996-98.

In charge, with Don Dawson and Ed Perkins, of the application for the NNRMS (National Network for Research in the Mathematical Sciences), 1998.

Member of the FCAR Selection Committee "Equipes FCAR", 1992-93.

Member of the Steering Committee, Institut des Sciences mathématiques, since its foundation in 1991 to 2000.

## ORGANIZATION OF WORKSHOPS, CONGRESSES, SUMMER SCHOOLS

A very brief summary that excludes both the thematic semesters and thematic years organized under my mandate at CRM as well as the NATO Scientific Conferences (Séminaire de Mathématiques Supérieures) organized under my supervision during the years 2001–2010 (It is at the Séminaire de Mathématiques Supérieures that Grothendieck, Lawson and Hofer exposed major programs for the first time). Taken both together, they represents about 160 major events under my scientific supervision that are impossible to list here. At the CRM, we invited most of the Fields Medals for our thematic programs two or three years \*before\* their medals, which I think is just the optimal timing.

In charge of the scientific organization of the CRM Thematic programme for the whole year 2012-2013 on Moduli spaces in Geometry (which was asked to me while I was not director of the CRM, that is in the period 2009–2010).

Co-organiser of the Conference in the Honour of Raoul Bott, June 2008.

Organiser (with Ralph Cohen (Stanford), Alexander Givental (Berkeley), Leonid Polterovich (Tel Aviv), Rick Schoen (Stanford)) of the Conference "Challenges and Perspectives in Symplectic Field Theory" in the honour of Yakov Eliashberg, Stanford, June 2007.

Organiser, with O. Cornea (MTL), H. Hofer (IAS) and K. Wehrheim (MIT) of the Workshop "Clusters Meet Polyfolds" on the relations between the Cornea-Lalonde Cluster complex and the Hofer-Wysocki-Zehnder polyfold theory, Institute for Advanced Study, Princeton, October 2005.

Organizer, with D. Auroux (MIT), of the Session in Symplectic Geometry at the First Canada-France Congress, Toulouse, 2004.

Member of the scientific committee, First Canada-France Congress in the Mathematical Sciences, Toulouse, July 2004.

Organizer, with Octav Cornea and Paul Biran, of the NATO ASI on Morse theoretic methods in Non-linear Analysis and Symplectic Topology, Montreal, June and July 2004.

Co-organizer, Journées Joyal, Colloque en l'honneur d'André Joyal, UQAM, april 2003.

Organizer, with Khesin, Jeffrey, Meinrenken and an international committee of the Fields-CRM six-month thematic program in Symplectic Topology and Gauge Theory, Montreal and Toronto, January 2001 to June 2001.

Organizer with Boyer, Hurtubise and Kamran of the CRM thematic year in Geometry and Topology, 1995.

Organizer with Hurtubise of the NATO Advanced Study Institute on Gauge Theory and Symplectic Geometry, 1995.

Member of the overall scientific committee, ACFAS annual meeting, UQAM, 1994.