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EDUCATION

- 2000 - **University of Paris-Sud** (Paris 11, Orsay, France)
PhD in Mathematics (December 2000).
Calcul hypoelliptique sur les variétés de Heisenberg, résidu non commutatif et géométrie pseudo-hermitienne (Hypoelliptic calculus on Heisenberg manifolds, noncommutative residue and pseudohermitian geometry).
- Advisor: A. Connes (IHES-Collège de France).
- Thesis Committee: A. Connes, E. Ghys (ENS Lyon), B. Helffer (Paris 11, Orsay), P. Pansu (Paris 11, Orsay), G. Skandalis (Paris 7, Jussieu).
- 2nd Readers: C.L. Epstein (University of Pennsylvania), H. Moscovici (Ohio State University).
- 1996 - **Ecole Normale Supérieure** (Paris, France)
MS in Mathematics (Magistère de Mathématiques, December 96).
- 1995 - **University of Paris-Sud** (Paris 11, Orsay, France)
MS in Mathematics (DEA de Mathématiques pures, November 95).
- 1994 - **Ecole Normale Supérieure** (Paris, France)
BS in Mathematics (Maîtrise de Mathématiques, September 94).
Major: Mathematics. Minor: Physics.

EMPLOYMENT

- 2005-2009 - **University of Toronto** (Toronto, Canada)
Assistant Professor.
- 2005-2006 - **Max Planck Institute** (Bonn, Germany)
Visiting Scholar (Jan. 1-May. 15).
- **University of Tokyo** (Tokyo, Japan)
Visiting Scholar (Oct. 31-Dec. 23) and JSPS Fellow (May 15-July 31).
- **UC Berkeley** (Berkeley, CA, USA)
Visiting Scholar (July 28-Oct. 22).
- 2002-2005 - **Ohio State University** (Columbus, USA)
Zassenhaus Assistant Professor.
- 2001-2002 - **Pennsylvania State University** (University Park, USA)
Visiting Assistant Professor.
- 2000-2001 - **Humboldt University at Berlin**,in (Berlin, Germany)
Postdoctoral Fellow of the European Network *Geometric Analysis* (Apr. 1-Jul. 28).
- **University of Potsdam** (Potsdam, Germany)
Predoctoral Fellow (Oct. 1-Dec. 31) and Postdoctoral Fellow (Jan. 1-Mar. 31) of the European Network *Geometric Analysis*.

- 1998-2000 - **Ecole Normale Supérieure of Lyon** (Lyon, France)
Caiman (Agrégé préparateur; special graduate instructorship position).
- 1995-1998 - **University of Paris-Sud** (Orsay, France)
Teaching Assistant and Fellow of the French Ministry of National Education and Research.

AWARDS AND FELLOWSHIPS

- 2007-2009 - New Staff Matching Grant, Connaught Fund, University of Toronto (\$20,000).
- 2007-2012 - NSERC Discovery Grant *Noncommutative Geometry and Applications* (\$50,000).
- 2006-2009 - Start-up research grant, University of Toronto (\$5,000).
- 2006-2007 - Fellowship of the Japanese Society for Promotion of Science (JSPS) (11 months, reduced to 12 weeks in Spring 2006 due to conflict with position at the University of Toronto).
- 2004-2005 - NSF Grant DMS 0409005 *Hypoelliptic Calculus, Noncommutative Geometry and CR Related Geometries* (one year grant; \$35,000).
- 1995-1998 - Graduate Fellowship of the French Ministry of National Education and Research.

PHD STUDENT

- 2007-2010 **Alan CL Lai** (University of Toronto)
Local index formula for twisted spectral triples (working title). Co-supervised with George Elliott. PhD expected by Spring 2010.

TEACHING EXPERIENCE

- 2006-2008 - **University of Toronto** (Canada)
- *Introduction to Noncommutative Geometry* (graduate course, lectures, Winter 2008).
 - *Calculus* (undergraduate course, lectures, year course, 2006-2007, 2007-2008).
 - *Ordinary Differential Equations* (undergraduate course, lectures and coordination, Winter 2007).
- 2002-2005 - **Ohio State University** (Columbus, OH, USA)
- *Distribution Theory* (graduate course, lectures, Spring 2004; lectures and recitations, Spring 2005).
 - *Measure Theory and Integration* (graduate course, recitations, Fall 2004).
 - *Introductory Linear Algebra* (undergraduate course, lectures, Spring 2004).
 - *Ordinary Differential Equations* (undergraduate course, lectures and recitations, Fall 2002; lectures, Winter and Spring 2003).
 - *Calculus III* (undergraduate course, lectures, Fall 2003).
- 2001-2002 - **Pennsylvania State University** (University Park, PA, USA)
- *Calculus II* (undergraduate course, lectures and recitations, Spring 2002).
 - *Calculus I* (undergraduate course, lectures and recitations, Fall 2001).
- 1998-2000 - **Ecole Normale Supérieure of Lyon** (Lyon, France)
- *Introduction to Projective Geometry* (graduate course, lectures).
 - *Leçons pour l'Agrégation* (graduate course, synthesis lectures on various subjects like the notion of quotient in algebra and geometry, the inverse function theorem and applications, examples of uses of uniform continuity in analysis).
 - *Pseudodifferential Operators and Microlocal Analysis* (undergraduate course, recitations, Spring 1999).
 - *Measure Theory and Integration* (undergraduate course, recitations, Fall 1999).

- 1996-1998 - **University of Paris-Sud** (Orsay, France)
 - *Analysis III and Linear Algebra* (undergraduate course, recitations, Fall 1997).
 - *Analysis II* (undergraduate course, recitations, Spring 1997).

SHORT TERM VISITS

- 2006-2007 - **IHES** (Bures-sur-Yvette, France)
 Visiting Member (Aug. 4-Sep. 1).
 - **UC Berkeley** (Berkeley, USA)
 Visiting Scholar (May 3-Jul. 31). Host: A. Weinstein.
- 2004-2005 - **Harvard University** (Cambridge, USA)
 Visitor (Feb. 28-Mar. 26). Host: Y.T. Siu.
 - **Princeton University** (Princeton, USA)
 Visiting Fellow (Jan. 25-Feb. 28). Host: C. Fefferman.
- 2003-2004 - **University of Adelaide** (Adelaide, Australia)
 Visiting Researcher (July. 8-Aug. 6).
 - **IHES** (Bures-sur-Yvette, France)
 Visiting Member (Jan. 2-Jan 31).
- 2002-2003 - **Max Planck Insitute** (Bonn, Germany)
 Visiting Member (Aug. 1-Aug. 29).
 - **Mathematical Research Institute** (Oberwolfach, Germany)
 Research in Pair (Jul. 20-Aug. 1).
- 2001-2002 - **Erwin Schrödinger Institute** (Vienna, Austria)
 Visiting Member (Aug. 30-Sep. 14).
 - **Ohio State University** (Columbus, USA)
 Visiting Researcher (Jul. 29-Aug. 28).
 - **Humboldt University at Berlin** (Germany)
 Postdoctoral Fellow (Jun. 18-Jul. 26).
 - **IHES** (Bures-sur-Yvette, France)
 Visiting Member (May. 14-Jun. 14).

SELECTED PRESENTATIONS

- June 2008 - Motives, Quantum Field Theory and Pseudodifferential Operators, Boston University, USA.
- Dec. 2007 - Winter CMS Meeting 2007, Special Session on Noncommutative Geometry, University of Western Ontario, London, Canada.
- Mar. 2007 - Operator Theory Seminar, University of Toronto, Canada.
- Dec. 2006 - Workshop on Trends in Noncommutative Geometry, Newton Institute, Cambridge, UK, Dec. 17-22 (poster presentation).
- Dec. 2006 - ISAAC Workshop on Pseudo-Differential Operators: Partial Differential Equations and Time-Frequency Analysis, Fields Institute, Toronto, Canada, Dec. 11-15.
- Nov. 2006 - Analysis Seminar, York University, Toronto, Canada.
- Nov. 2006 - PDE/Applied Mathematics/Analysis Seminar, University of Toronto, Canada.
- Aug. 2006 - Workshop on Noncommutative Geometry and Cyclic Cohomology, Newton Institute, Cambridge, UK, July. 31-Aug. 4.

- Dec. 2005 - Hayama symposium in Several Complex Variables, Haya Japan, December 18-21. Organizer: T. Ohsawa.
- Dec. 2005 - Analytic Geometry of the Bergman Kernel and Related Topics, RIMS, Kyoto, Japan, December 12-16. Organizer: T. Ohsawa.
- Nov. 2005 - Operator Algebra Seminar, University of Tokyo, Japan.
- Nov. 2005 - Seminar on Geometric Complex Analysis, University of Tokyo, Japan.
- Oct. 2005 - Workshop on Traces in Geometry, Number Theory and Quantum Fields, Max Planck Institute, Bonn, Germany, October 24-28. Organizers: S. Albeverio, M. Marcolli and S. Paycha.
- Oct. 2005 - PDE and Geometry Seminar, University of Washington, Seattle, USA.
- Oct. 2005 - Special Lecture, UC Davis, USA.
- Oct. 2005 - Geometry Seminar, Stanford University, USA.
- Sept. 2005 - Symplectic Geometry Seminar, UC Berkeley, USA.
- Mar. 2005 - Analysis and Geometry Seminar, Northeastern University, USA.
- Mar. 2005 - Geometry Seminar, Boston University, Boston, USA.
- Mar. 2005 - Colloquium, UC Riverside, Riverside, USA.
- Feb. 2005 - Colloquium, IUPUI, Indianapolis, USA.
- Feb. 2005 - Heisenberg Group Seminar, SUNY Stony Brook, Stony Brook, USA.
- Feb. 2005 - Analysis Seminar, Princeton University, Princeton, USA.
- Sep. 2004 - Workshop on Noncommutative Geometry, The Local Index Formula and Hopf Algebras, Fields Institute, Toronto, Canada. Organizers: N. Higson, M. Khalkhali and B. Tsygan.
- May 2004 - 2nd Annual Spring Institute on Noncommutative Geometry and Operator Algebras, Vanderbilt University, Nashville, USA. Organizers: D. Bisch, A. Connes, B. Hughes, G. Kasparov and G. Yu.
- Apr. 2004 - Special Session on CR Geometry and Singularities, Spring Eastern Section AMS Meeting, Lawrenceville, NJ, April 17-18, 2004. Organizers: J. D'Angelo, J. Kohn, X. Huang, A. Nicoara.
- Mar. 2004 - Conference on Asymptotic and Effective Results in Complex Geometry (in honor of Bernard Shiffman's 60th birthday), Johns Hopkins University, Baltimore, March 15-21, 2004. Organizers: J.P. Demailly, Y.T. Siu, and S. Zelditch
- Aug. 2003 - Workshop on noncommutative geometry and number theory, Max Planck Institute, Bonn, Germany. Organizers: K. Consani, M. Marcolli, Y. Manin.
- May 2003 - Clay Mathematics Institute international conference and spring school on noncommutative geometry and applications, Vanderbilt University, Nashville, USA. Organizers: D. Bisch, D. Ellwood, B. Hughes, G. Kasparov and G. Yu.
- Apr. 2003 - Workshop on noncommutative geometry, BIRS, Banff, Canada. Organizers: A. Connes, J. Cuntz, G. Elliott, M. Khalkhali.
- Oct. 2001 - West Coast Operator Algebra Seminar, Arizona State University, Tempe, USA. Organizers: S. Kaliszewski, J. Quigg, J. Spielberg.
- May 2001 - Workshop on geometric scattering theory and elliptic theory on singular and noncompact spaces, MSRI, Berkeley. Organizers: T. Christansen, C. Epstein, R. Mazzeo and R. Melrose.
- Feb. 2001 - Spring school on PDEs, Potsdam, Germany. Organizers: C. Hua, L. Rodino, E. Schrohe, B.W. Schulze.
- Oct. 1999 - Annual meeting of the French Operator Algebras Network, Paris, France.

Aug. 1998 - International Congress of Mathematicians, short communication, Berlin, Germany.

ADMINISTRATIVE RESPONSABILITIES

2007-2008 - **Fields Institute**

Co-organizer of the 36th Canadian Annual Symposium on Operator Algebras and Their Applications (COSy), May 20-24.

2002-2004 - **Ohio State University**

Organizer of the Geometric Analysis seminar.

1999-2000 - **Ecole Normale Supérieure of Lyon, France**

Co-organizer of the seminar of Pure Mathematics.

1998-1999 - **Ecole Normale Supérieure of Lyon, France**

Co-organizer of the internal seminar of the Math Department.

1997-1998 - **University of Paris-Sud (Orsay, France)**

Vice-Secretary of the Graduate Student Association.

1996-1998 - **University of Paris-Sud (Orsay, France)**

Tutorials on Mathematics at the undergraduate help center (La Boutique).

REFERENCES

Prof. **Alain Connes**

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35 route de Chartres

91440 Bures-sur-Yvette

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E-mail: alain@connes.org

Prof. **C. Robin Graham**

Department of Mathematics

University of Washington

Seattle, WA 98195-4530

USA

E-mail: robin@math.washington.edu

Prof. **Robert L. Jerrard** (teaching)

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Toronto, ON, M5S 2E4

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E-mail: rjerrard@math.utoronto.ca

Prof. **Henri Moscovici**

Department of Mathematics

Ohio State University

Columbus, OH 43210

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