

LIM Poon Chuan Adrian

Nanyang Technological University
National Institute of Education
Mathematics and Mathematics Education (MME)
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- RESEARCH INTERESTS** *Stochastic Analysis, Infinite Dimensional Analysis, Gauge Theories, Heat kernel Analysis.*
- CURRENT POSITION** *Assistant Professor, Mathematics* 28 Feb 2011 - present
National Institute of Education, Singapore
- EMPLOYMENT HISTORY**
1. *Postdoc, Mathematics* 24 Feb 2009 - Feb 23 2011
University of Luxembourg, Luxembourg
 2. *NTT Assistant Professor, Mathematics* 1 Sep 2007 - Aug 31 2008
Vanderbilt University, Nashville
 3. *Visiting Assistant Professor, Mathematics* Aug 2006 - May 2007
Cornell University, Ithaca
 4. *Research Assistant* Summers 2002, 2003
Noncommutative Algebra,
University of California, San Diego (UCSD)
 5. *Teaching Assistant* Sep 2001 - June 2006
UCSD Mathematics
- SHORT TERM VISIT** *Department of Mathematics* 29 May 2008 - 10 July 2008
National Taiwan University, Taiwan
- EDUCATION**
1. *PhD, Mathematics* 16 June 2006
University of California, San Diego (UCSD), California
Advisor: Prof Bruce Driver
 2. *Master of Arts, Mathematics* 11 June 2004
UCSD, California
 3. *Master of Science, Mathematics* 20 Nov 2001
Bachelor of Science with 1st Class Honours, Mathematics 5 Aug 2000
National University of Singapore (NUS), Singapore
Advisor: Dr Wong Yan Loi
 4. *Bachelor of Science* 4 Aug 1999
Majors: Mathematics, Physics
- PUBLICATIONS**
1. 2012: Asymptotic estimates on the time derivative of entropy on a Riemannian manifold; Joint with Dejun Luo, *To appear in Advances in Geometry.*
 2. 2011: Non-Abelian Gauge theory for Chern-Simons Path Integral on R^3 , *Accepted by the Journal of Knot Theory and its Ramifications.*
 3. 2011: Path space and free loop space, *Bulletin of Belgian Mathematical Society* **18** No. 3 (2011).

4. 2011: Chern-Simons Path Integral on R^3 using Abstract Wiener Measure, *Commun. Math. Anal.* **11** No. 2 (2011), 1-22.
5. 2008: Non-Commutative Partial Matrix Convexity; Joint with W. Helton, D. Hay and S. Mccullough., *Indiana Univ. Math. J.* **57** No. 6 (2008), 2815-2842.
6. 2008: Fredholm Determinant of an Integral Operator driven by a Diffusion Process, *Journal of Applied Mathematics and Stochastic Analysis*, **vol. 2008**, Article ID 130940.
7. 2007: A Non-standard Geometric Quantization of the Harmonic Oscillator, *J. Math. Phys.*, **48** 092105(2007).
8. 2007: Path integrals on a compact manifold with non-negative curvature, *Reviews in Mathematical Physics* **19** (2007), no. 9, 967-1044.

**TEACHING
EXPERIENCE**

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|--|-----------------------------|
| <p>Course Instructor
National Institute of Education, MME</p> <ol style="list-style-type: none"> 1. Calculus II, Aug 2011 2. Advanced Calculus and Applications for Educators, Aug 2011 | <p>Aug 2011- Dec 2011</p> |
| <p>Course Instructor
University of Luxembourg, Mathematics Research Unit</p> <ol style="list-style-type: none"> 1. Markov Chains, Spring 2010 | <p>Feb 2010 - June 2010</p> |
| <p>Course Instructor
Vanderbilt University Mathematics Department</p> <ol style="list-style-type: none"> 1. Second Year Calculus 150B (Spring 08) 2. First Year Calculus 150A (Fall 07) | <p>Aug 2007 - May 2008</p> |
| <p>Course Instructor
Cornell University Mathematics Department</p> <ol style="list-style-type: none"> 1. Calculus 2 (Spring 07). 2. Calculus for Engineers (Fall 06). 3. Lebesgue Integration and Measure (Fall 06). | <p>Aug 2006 - May 2007</p> |