

Curriculum Vita
(November 17, 2009)

Pascal M. Vaudrevange

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RESEARCH INTERESTS

cosmology, inflation, statistical methods in cosmology, observational tests of theories of the early universe, MCMC algorithms, string cosmology, dark energy,

ACADEMIC POSITIONS

- Postdoctoral Scholar, Department of Physics, Case Western Reserve University, 11/2007 -

EDUCATION

- Ph.D., Physics, University of Toronto, Canada, “*Inflation and Supersymmetry*”, advisor: Lev Kofman, 09/2002 - 11/2007
- M.Sc. (Diplom), Physics, University of Bonn, Germany, “*Feynman Rules for 2D Weyl Spinors in Supersymmetry*”, advisor: Herbi Dreiner, 10/1996 - 12/2001

AWARDS

- **University of Toronto Fellowship**, 2002 - 2005
- **E. C. Stevenson Fellowship**, 2002, 2004
- **L. Gilchrist Fellowship**, 2005

PAPERS

1. J. R. Bond, L. Kofman, C. Contaldi, Z. Huang, P. M. Vaudrevange, *Scanning Inflation*, in prep
2. N. Cornish, D. Spergel, G. D. Starkman, P. M. Vaudrevange, *Circles in the Sky Reloaded*, in prep
3. P. M. Vaudrevange, D. I. Podolsky, G. D. Starkman, *Surprising phenomena in a rich new class of inflationary models*, arXiv:0911.3397 [astro-ph.CO]
4. G. D. Starkman, R. Trotta, P. M. Vaudrevange *The Virtues of Frugality - Why cosmological observers should release their data slowly*, arXiv:0909.2649 [astro-ph.CO], **MNRAS Lett**, **401**, **1**, **L15-L18 (2010)**
5. D. Baumann et al. *CMBPol Mission Concept Study: Probing Inflation with CMB Polarization*, arXiv:0811.3919 [astro-ph]
6. G. D. Starkman, R. Trotta, P. M. Vaudrevange, *Introducing doubt in Bayesian model comparison*, arXiv:0811.2415 [physics.data-an]
7. J. R. Bond, L. Kofman, S. Prokushkin, P. M. Vaudrevange, *Roulette Inflation with Kähler moduli and their axions*, hep-th/0612197, **Phys. Rev. D** **75**:123511,2007
8. P. M. Vaudrevange, L. Kofman, *Trans-Planckian Issue in the Milne Universe*, arXiv:0706.0980 [hep-th]
9. P. M. Vaudrevange, *Feynman Rules for Two-dimensional Weyl-Spinors in Supersymmetry* (Diplom Thesis), BONN-IB-02-02

PRESENTATIONS

1. **CERCA**, Case Western Reserve University, Cleveland, OH, March 2010
2. **Seminar**, Perimeter Institute, Waterloo, Canada, March 2010
3. **Workshop on low- ℓ / large angle cosmology**, Cleveland, OH, February 2010

4. **Seminar**, APC Paris, France, January 2010
5. **Seminar**, RWTH-Aachen, Germany, December 2009
6. **Seminar**, CITA, Toronto, Canada, October 2009
7. **CCAPP Symposium**, Columbus, OH, October 2009
8. **International Workshop on Cosmic Large Scale Structure and Evolution**, Bielefeld, Germany, September 2009
9. **Cosmology Seminar**, LMU Munich, Germany, June 2009
10. **Seminar**, Helsinki University, Finland, June 2009
11. **CERCA**, Case Western Reserve University, USA, February 2009
12. **Cosmology Seminar**, LMU Munich, Germany, December 2008
13. **COSMO 2008**, University of Madison, Wisconsin, USA, August 2008
14. **CERCA**, Case Western Reserve University, USA, March 2008
15. **Particle Astrophysics Seminar**, Case Western Reserve University, USA, November 2007
16. **COSMO 2007**, University of Sussex, Brighton, UK, August 2007
17. **Journal Club**, Columbia University, New York, USA, February 2007
18. **Cosmology on the Great Lakes**, Perimeter Institute, Waterloo, Canada, November 2006
19. **COSMO 2006**, UC Davis, USA, September 2006
20. **Inflation after WMAP**, Ann Arbor, USA, May 2006
21. **COSMO 2005**, Bonn, Germany, August 2005
22. **CITA-Perimeter Workshop**, CITA, Toronto, Canada, December 2004
23. **DESY Theory Workshop**, DESY, Hamburg, Germany, September 2004
24. **COSMO 2004**, Toronto, Canada, September 2004
25. **Graduiertenkolleg 282 “Field Theoretic Methods in Particle Physics, Gravitation, and Statistical Physics” of the DFG**, Hannover University, Germany, Spring 2002
26. **SOSSeminar**, Bonn University, Germany, Spring 2002
27. **Diplom colloquium**, Bonn University, Germany, Winter 2001

POSTERS

- **22nd IAP Colloquium – Inflation+25, The First 25 Years Of Inflationary Cosmology**, Paris, France, June 2006

OTHER CONFERENCES/ WORKSHOPS

1. **CITA/PI Day**, Perimeter Institute, Waterloo, Canada, December 2009
2. **COSMO 09**, CERN, Switzerland, September 2009
3. **Theory Canada 2**, Perimeter Institute, Waterloo, Canada, June 2006
4. **Workshop on Gravitational Aspects of String Theory**, Fields Institute, Toronto, Canada, May 2005
5. **String Phenomenology Workshop**, Perimeter Institute, Waterloo, Canada, March 2005
6. **CITA/Perimeter Workshop**, CITA, Toronto, Canada, October 2003
7. **COSMO 2003**, Internatl. Conference on Particle Physics and Cosmology, Ambleside, UK, August 2003

8. **CITA/Perimeter Workshop**, Perimeter Institute, Waterloo, Canada, October 2002
9. **XIV Workshop Beyond the Standard Model**, Physikzentrum Bad Honnef, Germany, March, 2002
10. **DPG Frühjahrstagung**, University of Bonn, Germany, March 2001

SUMMER SCHOOLS

1. “**Chiral Perturbation Theory**”, Institute for Nuclear Physics, Jülich, Germany, Summer 1999
2. “**Basics and New Methods of Theoretical Physics**”, Saalburg, Germany, September 2001
3. “**Strings, Gravity and Cosmology**”, Perimeter Institute, Waterloo, Canada, June/ July 2005

WORKSHOP ORGANIZATION

1. **TGGP09**, Case Western Reserve University, Cleveland, OH, USA, May 2009
2. **BCCS08**, Case Western Reserve University, Cleveland, OH, USA, December 2008
3. **COSMO 2004**, CITA, University of Toronto, Canada, September 2004

OTHER COMMITTEES

- **Particle Astro Seminar Committee**, CWRU, 2008-
- **Computing Committee**, CITA, University of Toronto, 2006-2007
- **Graduate Liason Committee**, Dept. of Physics, University of Toronto, 2004-2007
- **Student Diversity Group**, Dept. of Physics, University of Toronto, 2004-2005

TEACHING

- **Programming workshop**, *CWRU*, (2009)
- **Tutor**, *Univ. of Toronto*, **PHY138 (Physics for Life Sci.)** (2002-2003), **PHY140 (Found. of Physics)** (2004-2007)
- **Marker**, *Univ. of Toronto*, **PHY1483F/ PHY483F – Relativity Theory I** (2004)
- **Entrance Examiner**, *OISE Univ. of Toronto*, **Secondary Teacher Education Program** (2002-2004)
- **Marker**, *OISE Univ. of Toronto*, **EDU1140 - International Lang. German** (2002-2004)
- **Tutor**, *Univ. of Bonn*, **Classical Mechanics** (2000), **Classical Electrodynamics** (2001), **Quantum Mechanics** (2002)

OTHER ACTIVITIES

- **LTS - Let’s Talk Science**, Outreach at local high-schools, Toronto, Canada, April 2004
- **Observing time** at the observatory “*Hoher List*” of the University of Bonn, Summer 1999
- **Practical Lab Course** at the observatory “*Hoher List*”, Bonn, Germany, March 1999

OTHER QUALIFICATIONS

- **Languages:** German (native), English (fluent), French (basic), Mandarin (studying), Latin
- **IT Skills:** Fortran90, C, Python, OpenMP, MPI, TeX, Mathematica, Maple, Unix system administration, Bash, Perl, Pascal

REFERENCES

J. Richard Bond bond@cita.utoronto.ca CITA University of Toronto 60 St. George St. Toronto, ON M5S 3H8 Canada	Lev Kofman kofman@cita.utoronto.ca CITA University of Toronto 60 St. George St. Toronto, ON M5S 3H8 Canada	Glenn D. Starkman gds6@cwru.edu Physics Department Case Western Reserve University 10900 Euclid Ave Cleveland, OH 44106 USA	Tanmay Vachaspati tanmay@case.edu Physics Department Case Western Reserve University 10900 Euclid Ave Cleveland, OH 44106 USA
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