

Alexi Morin-Duchesne

GENERAL INFORMATION Département de Physique
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EDUCATION Université de Montréal, Montréal, Québec Canada

Ph. D. in mathematical physics, 2007-...

- Research topic: *Two dimensional spin and loop models*
- Advisor: Y. Saint-Aubin
- Predoctoral exam passed, 01/2009: *La matrice de transfert du modèle d'Ising*
- Accelerated passage to Ph. D after one year of Masters

Bachelor in physics, 2004-2007

- Graduating GRE: 4.2/4.3
- 3030 - End of Bachelor Project on the adiabatic approximation, advisor: R. Mackenzie

PUBLICATIONS A. Morin-Duchesne, Y. Saint-Aubin, *Critical exponents for the homology of Fortuin-Kasteleyn clusters on a torus*, Phys. Rev. E **80** (2009) 13 p.

R. Mackenzie, A. Morin-Duchesne, H. Paquette, J. Pinel, *Validity of the Adiabatic Approximation*, Phys. Rev. A **76**, (2007) 4 p.

WORK AND
TEACHING
EXPERIENCES

Teaching assistant

- Mathematical tools for physicists, Fall 2009
- Waves and vibrations, Winter 2009
- Électromagnetism I, Winter 2008
- Quantum Mechanics I, Fall 2007

Seminars

- As part of the Tuesday's conferences in the Laboratoire de Physique Mathématique, in CRM, 11/2009
- During the PIMS summer school, at UBC, 06/2009
- During the thematic year on probabilistic methods in mathematical physics, at l'Université de Montréal, 08/2008

Research assistant

- In theoretical physics, Summer 2006, advisor: Manu Paranjape
- In experimental physics, Summer 2005, advisor: Sjoerd Roorda

FUNDING AND
SCHOLARSHIPS

Scholarships awarded for excellence

- BESC D NSERC scholarship, 35 000 \$ per year, 2009-2011
- FESP scholarship, payment of tuition fees for one semester, 09/2010
- Letko Brosseau et associés scholarship, 1 500 \$, 09/2009
- FESP scholarship for accelerated passage to Ph. D. after only one year of Masters, 7 000 \$, 2008
- FQRNT scholarship, 5 000 \$ per semestre, 05/2008 - 12/2008
- ES M NSERC scholarship, 17 300 \$ per year, 05/2007 - 04/2008
- Université de Montréal admission scholarship, 3 000 \$, 2004

Scholarships awarded for participation to conferences

- CMI scholarship for the summer school in probability in Buzios, Brésil, lodging and meal expenses taken care of , Summer 2010
- PIMS scholarship for the summer school in probability in UW, Seattle, 1 500 \$, Summer 2010
- PIMS scholarship for the summer school in probability in UBC, Vancouver, 1 500 \$, Summer 2010

Bourses pour workterms

- NSERC scholarship, 5 600 \$, Summer 2006
- NSERC scholarship, 5 600 \$, Summer 2005

PRIZES AND
DISTINCTIONS

- Third prize at the l'CAP physics contest, 02/2007
- 92^e percentile in the GRE physics exam, 12/2006

OTHER
ACTIVITIES

Implication in the PHYSUM (association of students in physics at Université de Montréal)

- Vice-President of Grad Students, 09/2010 - ...
- Vice-President of Physical Activities, 09/2007 - 08/2008

Amateur pianist, soccer and chess player