

Curriculum Vitae

July 20th, 2008

1 Personal Data

- Name: José Abel Hoyos Neto.
- Date of Birth: October 1st, 1979.
- Local of Birth: Manaus, Amazonas, Brazil.
- Nationality: Brazilian.
- Marital Status: Single.
- Address:
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2 Education

- **Nov 2005** Ph. D. in Physics, Universidade Estadual de Campinas (UNICAMP), Campinas, São Paulo, Brazil. GPA 4.0. Advisor: Prof. Eduardo Miranda.
- **Dec 2003** B. S. Ed. degree in Education of Physics, Universidade Estadual de Campinas (UNICAMP), Campinas, São Paulo, Brazil.
- **Dec 2000** B. S. in Physics, Universidade Estadual de Campinas (UNICAMP), Campinas, São Paulo, Brazil.

3 Employment

- **Nov 2007 - present** Postdoctoral Research Associate at Duke University, Durham, North Carolina, USA. Supervisor: Harold Baranger.
- **Jan 2006 - Oct 2007** Postdoctoral Research Associate at Missouri University of Science and Technology, Rolla, Missouri, USA. Supervisor: Thomas Vojta.

4 Teaching Experience

- **Feb 2007** (1 week) Substitute Lecturer at the Physics Department of Missouri University of Science and Technology for Graduate Statistical Mechanics.
- **Aug - Nov 2005** (1 semester) Lecturer at the Physics Institute of University of Campinas for Undergraduate Classical Mechanics. *Observation:* Although this position is only held by professors, I was a senior Ph. D. student at the time and was exceptionally given the entire responsibility for this course.
- **Aug - Nov 2004** (1 semester) Instructor at the Physics Institute of University of Campinas for Undergraduate Basic Physics.
- **Mar 2001 - Jun 2004** (7 semesters) Graduate Teaching Assistant at the Physics Institute of University of Campinas for Undergraduate Basic Physics, Classical and Quantum Mechanics.
- **Aug 1997 - Jun 1998** (2 semesters) Undergraduate Teaching Assistant at the Mathematics Institute of University of Campinas for Differential Calculus at UNICAMP, Campinas, SP, Brazil.

5 Working (Research) Experience

- **Nov 2007 - present** Postdoctoral Research Associate at Duke University. Supervisor: Harold Baranger.
- **Aug 2006** Visiting Researcher at Pacific Institute of Theoretical Physics, Department of Physics & Astronomy, University of British Columbia, Vancouver, BC, Canada.
- **Jan 2006 - Oct 2007** Postdoctoral Research Associate at Missouri University of Science and Technology. Supervisor: Thomas Vojta.

- **Mar 2001 - Nov 2005** Graduate Research Assistant at the Physics Institute - UNICAMP. Work on Random Spin Systems under supervision of Prof. Eduardo Miranda.
- **Aug 1999 - Dec 2000** Undergraduate Research Assistant at the Physics Institute - UNICAMP. Work on the Physics of Disordered and Correlated Systems under supervision of Prof. Eduardo Miranda.
- **Aug 1998 - Jul 1999** Undergraduate Research Assistant at the Mathematics Institute - UNICAMP. Work on non-linear optimization problems under supervision of Prof. José M. Martinez. Working Experience

6 Working (Other) Experience

- **2005** Seminar Co-organizer of the Graduate Student Association, UNICAMP, Campinas, SP, Brazil.
- **July 2004** Jury member of the Brazilian Young Physicists Tournament, Campinas, SP, Brazil.
- **Sept 2003** Co-organizer of the IV Young Investigator Meeting at UNICAMP, Campinas, SP, Brazil.

7 Invited talks

- **2008** Condensed matter seminar at the Centre National de la Recherche Scientifique, Orsay, France, on July 19th. *Dissipation disorder and symmetry on certain quantum critical points.*
- **2008** Condensed matter seminar at the National High Magnetic Field Laboratory, Tallahassee, FL, USA, on April 18th. *Effects of dissipation on a quantum critical point with disorder.*
- **2007** Condensed matter seminar at the Physics Department of the University of British Columbia, Vancouver, BC, Canada, December. *Effects of dissipation on a quantum critical point with disorder.*
- **2007** Condensed matter seminar at the Physics Department of Duke University, Durham, NC, USA, November. *Disorder and dissipation in quantum phase transitions.*

- **2007** Colloquium at the Physics Department of Missouri University of Science and Technology, Rolla, MO, USA, October. *Dissipative effects in quantum phase transitions of disordered magnets.*
- **2007** Invited Seminar at the Physics Department of Duke University, Durham, NC, USA, March 23rd 2007. *Quantum fluctuations and disorder in spin chains.*
- **2006** Seminar at the workshop on "Spin, Charge and Topology in Low dimension systems" in BIRS (Banff International Research Station), Banff, Alberta, Canada, from July 29th to Aug 3rd 2006. *Correlation and entanglement in random spin-1/2 chains.*
- **2006** Colloquium entitled "Random spin chains" at the Department of Physics of Missouri University of Science and Technology, Rolla, MO, USA, Jan 26th.

8 Contributed talks

- **2008** Short talk at Boulder summer school on Strongly Correlated Materials. *Correlation and Entanglement in random spin chains.*
- **2008** The APS March Meeting. *Theory of smeared quantum phase transitions.*
- **2008** The APS March Meeting. *Correlation and entanglement in random spin chains.*
- **2007** The APS March Meeting. *Percolation transition and dissipation in quantum Ising magnets.*
- **2006** Short talk at Les Houches summer school on Quantum Magnetism. *Percolation transition and dissipation in Ising magnets.*
- **2006** The APS March Meeting. *Random antiferromagnetic spin chains with enlarged symmetry.*
- **2004** Short Talk at the winter school on "RG Methods for Interacting Electron Systems". *Random antiferromagnetic $SU(N)$ spin chains.*

9 Contributed posters

- **2008** *Theory of smeared quantum phase transitions.* Boulder Summer School.
- **2008** *Theory of smeared quantum phase transitions.* Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems (international seminars).

- **2008** *Effects of dissipation on a quantum critical point with disorder*. Conductor-Insulator Quantum Phase Transitions Workshop.
- **2007** *Effects of dissipation on a quantum critical point with disorder*. The 25th Jerusalem Winter School in Theoretical Physics: “Condensed Matter Physics and Quantum Information with Cold Atoms”.
- **2007** *Percolation transition and dissipation in quantum Ising magnets*. The International Conference on Strongly Correlated Electron Systems (SCES).
- **2005** *Anisotropy effects in random antiferromagnetic $SU(4)$ spin chains*. The XXVIII Brazilian National Meeting of Condensed Matter Physics.
- **2004** *Random antiferromagnetic $SU(N)$ spin chains*. The XXVII Brazilian National Meeting of Condensed Matter Physics.

10 Attended Conferences, Meetings, Schools, Workshops

- The APS March Meeting, March 2008, New Orleans, LA, USA.
The APS March Meeting, March 2007, Denver, CO, USA.
The APS March Meeting, March 2006, Baltimore, MD, USA.
- Boulder Summer School for Condensed Matter and Materials Physics: Strongly Correlated Materials, June 30 - July 18, 2008 at the University of Colorado, Boulder, CO, USA.
- International Seminars on Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems, June 2-27, 2008 at the Max-Planck-Institut für Physik Komplexer Systeme, Dresden, Germany.
- Conductor-Insulator Quantum Phase Transitions Workshop, January 9-11, 2008 at The Ohio State University, Columbus, OH, USA.
- The 25th Jerusalem Winter School in Theoretical Physics: “Condensed Matter Physics and Quantum Information with Cold Atoms” from December 26, 2007 until January 4, 2008, at the Institute for Advanced Studies of the Hebrew University of Jerusalem.
- The International Conference on Strongly Correlated Electron Systems (SCES), May 2007, Houston, TX, USA.
- Workshop on "Spin, Charge and Topology in Low dimension systems" at BIRS (Banff International Research Station), Banff, Alberta, Canada, from July 29th to Aug 3rd 2006.

- Les Houches summer school on Quantum Magnetism, Jun 6-23 2006, Les Houches, France.
- The 55th Meeting of Nobel Prize Winners, from June 26th to July 1st 2005, Lindau, Germany.
- The XXVIII National Meeting of Condensed Matter Physics, May 2005, Santos, SP, Brazil. The XXVII National Meeting of Condensed Matter Physics, May 2004, Poços de Caldas, MG, Brazil.
- Winter school on “RG Methods for Interacting Electron Systems”, July 12 to August 06, 2004, at the International Center of Condensed Matter Physics, Brasília, DF, Brazil.
- The “I Brazilian School of Statistical Mechanics”, February 18 to March 01, 2002, at Universidade Estadual de São Paulo - USP, São Carlos, SP, Brazil.

11 Scholarship, Awards and Distinctions

- **2007** “Young Investigator Award” given by the Organizing Committee of The International Conference on Strongly Correlated Electron Systems (SCES07 - <http://sces07.rice.edu/>).
- **Mar 2001 - Nov 2005** Scholarship from the Brazilian State Agency Fapesp for Graduate Research Assistants.
- **2001 - 2005** Scholarship from the Unicamp University Program for Graduate Teaching Assistants (9 semesters in total).
- **2000** Honour for the best undergraduate grade point average score.
- **Jul 1999 - Dec 2000** Scholarship from the Brazilian State Agency Fapesp for Undergraduate Research Assistants.
- **Aug 1998 - Jul 1999** Scholarship from the Brazilian National Research Council (CNPq) for Undergraduate Research Assistants.
- **Aug 1997 - Jul 1998** Scholarship from the UNICAMP Program for Undergraduate Teaching Assistants.

12 Meetings organized

- Co-organizer of the “IV Young Investigator Meeting” at the Physics Institute of the Campinas State University (UNICAMP), September 2003, Campinas, SP, Brazil.

13 Miscellaneous

- Co-organizer of the 2004 Graduate Student Seminars, at the Physics Institute of the Campinas State University (UNICAMP), Campinas, SP, Brazil.
- Jury member of the 2004 Brazilian Young Physicist Tournament, July 2004, Campinas, SP, Brazil.
- Organizer of the 2003 and 2004 Soccer Tournament of the Graduate Students of the Physics Institute of the Campinas State University (UNICAMP).
- Coreographer and dancer of the Forró Brasil dancing group from 2000 to 2005.

14 Professional Societies

American Physical Society.

Brazilian Physical Society.

15 References

- **Prof. Eduardo Miranda**
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13083-970, CAMPINAS, SP, BRAZIL.
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- **Prof. Thomas Vojta**
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- **Prof. Harold U. Baranger**
Department of Physics
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- **Prof. Amir O. Caldeira**
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16 Languages

- Portuguese - native language
- English - proficient
- Spanish and French - reading skills