

Daniel Doro Ferrante

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EDUCATION

Brown University, Providence, RI
Ph.D., Physics, expected May 2006
Sc.M., Physics, May 2002
Advisor: Professor Gerald S. Guralnik

University of São Paulo, São Paulo, Brazil
B.S., July 1998
Double major in Physics and Mathematics
Advisor: Professor Jorge L. deLyra

EXPERIENCE

Research Computing Proctorship (2004–present)

- Hardware and Software maintenance of the High Energy Theory group network, including system, network and security management.

Research Assistant, High Energy Theory Group, Brown University (2002–2004)

- Proposed the use of mollifiers in Lattice Quantum Field Theory in order to compute in Minkowski spacetime; applied it to different QFTs.

Teaching Assistant, Department of Physics, Brown University (1999–2002)

- Led laboratory and help sessions; held weekly office hours; graded lab reports and exams; developed and maintained website, email lists and chatrooms.

Research Assistant, Department of Physics, University of São Paulo (1994–1999)

- Conducted analytic studies in Supersymmetry, Supersymmetric Quantum Field Theories, Supersymmetric String Theories and Supergravity.
- Conducted analytic studies in Lattice Quantum Field Theory; applied it to the phase transition properties of $\lambda\phi^4$ -theory (from the lattice to the continuum limit).

SELECTED PUBLICATIONS

- Daniel D. Ferrante; *Generalized Bundle Quantum Mechanics* in Invited Contribution to “Progress in Quantum Physics Research”, to be published by Nova Science Publishers, Inc., New York.
- Gerald S. Guralnik, J. D. Doll, Richard Easter, Pinar Emirdag, Daniel D. Ferrante, Stephen Hahn, Dmitri Petrov and D. Sabo; *Alternative Numerical Techniques*, <http://arxiv.org/abs/hep-lat/0209127>.
- Daniel D. Ferrante, J. D. Doll, D. Sabo, Gerald S. Guralnik; *Mollified Monte Carlo*, <http://arxiv.org/abs/hep-lat/0209053>.
- Richard Easter, Daniel D. Ferrante, Gerald S. Guralnik and Dmitri Petrov; *A Review Of Two Novel Numerical Methods in QFT*, <http://arxiv.org/abs/hep-lat/0306038>.

SKILLS

- **Operating Systems:** DOS, Windows 98/Me/NT/2000/XP, MacOS X, GNU/Linux (several distros), SunOS and Solaris, HPUX, Irix, AIX.
- **Computer Languages:** FORTRAN (77, 90, 95), C, C++, [X]HTML (and CSS), Perl, Python, tcsh, [ba]sh.
- **Tools and Systems:** Matlab, Maple, Mathematica, Zope, Plone, T_EX and L^AT_EX, METAFONT and METAPOST, $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ -T_EX and $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ -L^AT_EX; System, Network and Security Manager of Windows and GNU/Linux networks (among a few other flavors of UNIX).

ACADEMIC HONORS

- Brown University Research Computing Proctorship 2004–2005.
- National Council of Scientific and Technological Development (CNPq; Brazil) Scholarship 1994–1999.