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SHORT VITA

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Employment:

1. Professor; Department of Physics, University of Arizona, August 2009–present.
2. Associate Professor; Department of Physics, University of Arizona, August 2003–July 2009.
3. Assistant Professor; Department of Physics, University of Arizona, August 2000–July 2003.
4. Senior Research Fellow; Kellogg Radiation Laboratory, California Institute of Technology, January 1998–August 2000.
5. Research Assistant Professor; Department of Physics, University of Washington, March 1996–December 1997.
6. Research Associate; Department of Physics, University of Washington, September 1993–February 1996.

Degrees:

Ph.D. (Physics)	University of Texas, Austin, USA, 1993	Adviser: S. Weinberg
M.Sc. (Physics)	Instituto de Física Teórica, São Paulo, Brazil, 1987	Adviser: B. Pimentel
B.Sc. (Physics)	Universidade de São Paulo, Brazil, 1984.	

Selected Honors and Awards:

- Principal Investigator; Department of Energy grant DE-FG02-04ER41338, August 2004–present.
- Excellence in Graduate Physics Teaching; University of Arizona, 2009.
- Fellow; American Physical Society, 2004.
- Alfred P. Sloan Research Fellow; Alfred P. Sloan Foundation, September 2002–September 2006.
- Outstanding Junior Investigator; Department of Energy grant DE-FG03-01ER41196, August 2001–July 2004.
- RHIC Physics Fellow, RIKEN BNL Research Center; Brookhaven National Laboratory, August 2000–July 2004.

Teaching Experience and Mentoring:

- Instructor of 8 undergraduate and 7 graduate courses; University of Arizona, Spring 2001–present.
- Instructor of 8 “Independent Study” and 2 “Honors Thesis” courses; University of Arizona, Spring 2001–present.
- Supervisor of 1 M.Sc. and 4 Ph.D. (1 current) students, and 4 postdoctoral researchers (1 current); California Institute of Technology and University of Arizona, April 1998–present.

Selected Service:

- Organizer of 14 meetings and 10 sessions in conferences; USA, Italy, Brazil, China, Chile, and Ecuador, since September 1996.
- Member of 9 advisory and 3 program committees of international conferences; USA, Brazil, Switzerland, China, Germany, and Japan, since July 2000.
- Member of the Nuclear Science Advisory Committee (NSAC) and NSAC Subcommittee on Nuclear Physics Performance Measures and Milestones; Department of Energy and National Science Foundation, Jan. 2006–Dec. 2008.
- Reviewer of over 20 grant proposals/fellowship applications; Department of Energy, National Science Foundation, John Simon Guggenheim Memorial Foundation, U.S. Civilian Research & Development Foundation, Fundação de Amparo à Pesquisa do Estado de São Paulo, Brazil, and Natural Sciences and Engineering Research Council of Canada, since 1998.
- Member of the Editorial Board; *Progress in Particle and Nuclear Physics* (Elsevier), 2009–2013.
- Referee for over 100 articles; *Physics Letters B*, *Physical Review A, C, D & Letters*, *Nuclear Physics A*, *Annals of Physics*, *European Physical Journal A & C*, *Few-Body Systems*, *Journal of Physics G*, *International Journal of Modern Physics A*, and *Modern Physics Letters A*, since 1993.
- Vice-Chair, Chair-Elect, Chair, and Past-Chair of the Topical Group on Few-Body Systems and Multiparticle Dynamics; American Physical Society, 2008–2012.
- Member of 9 committees or subcommittees; American Physical Society, since Spring 2001.
- Member of 28 departmental committees; University of Arizona, since 2000.

Scholarly Presentations:

- 12 sets of lectures in summer schools or other extension courses; Portugal, Korea, USA, Tunisia, Brazil, and France, since June 1992.
- over 70 invited and 10 contributed talks at conferences, and 15 colloquia and 110 talks at universities and laboratories; Brazil, USA, Italy, the Netherlands, Germany, Czech Republic, Australia, Finland, Turkey, Sweden, Korea, Argentina, Norway, Belgium, and China, since July 1987.

Main Publication Output:

- 62 research and review papers published in refereed journals; *Can. J. Phys.*, *Prog. Theor. Phys.*, *Phys. Lett. B*, *Phys. Rev. A, C, D & Lett.*, *Nucl. Phys. A*, *Prog. Part. Nucl. Phys.*, *Few-Body Syst.*, *Ann. Rev. Nucl. Part. Sci.*, *J. Phys. G*, and *Ann. Phys.*, since 1988.
- 38 papers published in conference proceedings (many refereed)
- 2 books edited
- 3 popular papers published in outreach media
- 3 committee reports written

Citation metrics:

(Spire, 07/16/2010)

- published papers: 68
- citations: 4207
- citations/paper: 61.9
- notable papers (citation range): 2 famous (250-499); 13 very well-known (100-249); 7 well-known (50-99)
- $h = 34$

Representative Achievements:

- Renormalization-group formulation of singular potentials
- First derivation of nuclear forces from Chiral Perturbation Theory and quantitative fit to two-nucleon phase shifts
- Formulation of the Contact Effective Field Theory for atomic and nuclear systems with large scattering lengths
- Renormalization-group analysis of the three-body system with short-range interactions and discovery of the limit-cycle behavior of the three-body force
- Formulation of the No-Core Shell Model as an EFT in a harmonic-oscillator basis
- Proof-of-principle calculation of thermal properties of nuclear matter using EFT in a finite spatial lattice
- Formulation of the Cluster Effective Field Theory and first applications to halo nuclei
- Model-independent determination of nucleon polarizabilities from proton and deuteron Compton scattering
- Successful prediction of neutral-pion photoproduction on the deuteron at threshold

- Successful prediction of the sign of the charge–symmetry–breaking asymmetry in $pn \rightarrow d\pi^0$
- Participation in the first experiment to measure the charge–symmetry–forbidden reaction $dd \rightarrow \alpha\pi^0$
- Development of a broad framework for the analysis of parity and time-reversal violation in nuclear systems

Current Interests:

- Hadronic resonances and molecules
- Few- and many-body (nuclear and atomic) systems
- Fundamental symmetries in hadronic and nuclear systems