

Sunethra Ramanan

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Citizenship: India.

Education

- The Ohio State University, Columbus Ohio - 43210
 - Postdoctoral Researcher (March 2007 - present)
 - Graduate School in Physics (June 2000 - March 2007)
 - PhD in Physics: March 2007
 - Dissertation title: *Renormalization Group Approach to the Nucleon-Nucleon Interaction*, Advisor: Prof. Richard J. Furnstahl
- Tata Institute of Fundamental Research, Mumbai, India
 - Graduate School in Physics: August 1999 - May 2000
- Indian Institute of Technology (I.I.T.- M), Chennai, India
 - Master of Science in Physics: May 1999
 - Dissertation Title: *Invariant Density of Chaotic Maps*, Thesis Advisor: Prof. V. Balakrishnan
- Stella Maris College, Chennai, India
 - Bachelor of Science in Physics: May 1997

Research projects

- 2003 - present: *Renormalization Group Approach to the Nucleon-Nucleon Interaction*
Advisor: Prof. Richard J. Furnstahl, The Ohio State University, Columbus, OH.

- 2002- 2003: *Quark-Hadron Duality*
Advisor: Prof. Sabine Jeschonnek and Prof. Richard J. Furnstahl, The Ohio State University, Columbus, OH.
- 2001 Summer: Summer Research: *Superconductivity - Reading Project*
Advisor: Prof. David Stroud, The Ohio State University, Columbus, OH.
- 2000 Summer: Summer Research: *Nonlinear Dynamics of Josephson Junctions*
Advisor: Prof. David Stroud, The Ohio State University, Columbus, OH.
- 1998 Summer: Summer Research (Visiting Student Research Program - V.S.R.P.):
Critical Phenomena and the Renormalization Group Theory
Advisor: Prof. Mohit Randeria, Tata Institute of Fundamental Research, Mumbai, India.

Talks and Meetings

- 30th July 2006: GORDON Conference, Tilton, NH *Poster on In-medium Weinberg eigenvalues*
- 24th July 2006: Nuclear Structure Conference, Oak-Ridge National Laboratory, Oak-Ridge, TN *Poster on In-medium Weinberg eigenvalues*
- April 2006: APS/DNP06: *Weinberg Eigenvalue analysis of the Renormalization Group based effective potential*, Dallas, TX
- October 2004: APS/DNP04: *Renormalization Group theory approach to nucleon-nucleon interaction and related many-body application*, Chicago, IL.
- August 2004: Summer Student Seminar: *Renormalization Group Approach to the Nucleon-Nucleon Interaction*, The Ohio State University, Columbus, OH.
- June 2004: 16th Nuclear Physics Summer School (NPSS), Bar Harbor, ME.
- April 2004: APS - Ohio Section: *Regulator Dependence of the Renormalization Group approach to the Nucleon-Nucleon Interaction*, Ohio University, Athens, OH.

- June 2003: HUGS Summer School Student talks: *Initial work on Renormalization Group Approach to the Nucleon-Nucleon Interaction*, Jefferson Lab, Newport News, VA.
- October 2002: APS/DNP02 and APS - Ohio Section: *Quark-Hadron Duality*, Michigan State University, East Lansing, MI and The Ohio-State University, Columbus, OH.

Publications

- *Convergence of the Born series with low-momentum interaction.* S.K. Bogner, R.J. Furnstahl, S. Ramanan, A. Schwenk nucl-th/0602060, Nucl.Phys.A773,2006.
- *Low-momentum potentials with smooth cut-offs* S.K. Bogner, R.J. Furnstahl, S. Ramanan, A. Schwenk, nucl-th/0609003
- *Weinberg Eigenvalues and Pairing with Low-Momentum Potentials* S.K. Bogner, R.J. Furnstahl and S. Ramanan (in preparation)

Awards and Honors

- Hazel Brown Teaching Award, The Ohio State University, Columbus, OH.
- Pre-selected for PhD program in Physics at Tata Institute of Fundamental Research, Mumbai, as a part of the Visiting Student's Summer Research Program.
- Received the college Gold medal for excellence in Academics (Physics), and Gnanam's Cup for excellence in Physics for three consecutive years of undergraduate studies, Best Out-going Student of the Department of Physics, Department of Physics and Proficiency in English Award, Stella Maris Collge, Chennai, India.
- Awarded for Academic Proficiency in physics and general proficiency for all three years of undergraduate studies, Stella Maris College, Chennai, India.

Teaching Experience

- Teaching Assistant at the Physics Department for 2 years, The Ohio State University, Columbus, OH.

– Courses: Introductory Mechanics (Spring 2002), Electricity and Magnetism Laboratory (Winter Quarter 2001 - Fall Quarter 2001)

- Taught in a local school as a part of Social Awareness Program, Stella Maris College, Chennai, India.

Computer Skills

- Extensive experience programming in C on Linux and Windows
- Extensive experience using Numerical Methods for Scientific Computing
- Experience with C++, Mathematica, Maple.

References

- Prof. R.J. Furnstahl
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Phone: 614-292-4830
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- Prof. Sabine Jeschonnek
Assistant Professor of Physics,
The Ohio State University(Lima Campus),
4240 Campus Drive,
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Lima, Ohio - 45804.
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- Dr. Achim Schwenk
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