

Curriculum Vitae

Sudha Srinivas

Professor of Physics
Department of Physics
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Education

- Ph.D. (Physics), 1995 State University of New York, Albany
Thesis: Theoretical Investigations of the Electronic Structure and Hyperfine Properties of Ionic Solids Including High T_c Systems. Thesis advisor: Professor Tara Prasad Das
- M.S. (Physics), 1987 University of Poona, Pune, India (Tata Institute of Fundamental Research-Poona University Program)
Specialization in Condensed Matter Theory, Computational Physics.
- B.Sc. (Physics), 1985 Miranda House (University of Delhi), Delhi, India
Majored in Physics; Math and Chemistry minors

Professional Experience

- 2014 – present Professor of Physics
Department of Physics
Northeastern Illinois University, Chicago, IL
- 2015 Interim chair (January 1, 2015 – June 30, 2015)
Departments of Earth Science and Physics
Northeastern Illinois University, Chicago, IL
- 2012 – 2014 Associate Professor of Physics and Director of the Center for Student Engagement (SCSE)
Department of Physics
Northeastern Illinois University, Chicago, IL
- 2008 – 2012 Associate Professor of Physics
Department of Physics
Northeastern Illinois University, Chicago, IL
- 2005 – 2008 Assistant Professor of Physics, and Undergraduate Advisor
Department of Physics
Northeastern Illinois University, Chicago, IL
- 2003 – 2005 Associate Professor of Physics
Department of Physics
Central Michigan University, Mt. Pleasant, MI
- 1998 – 2003 Assistant Professor of Physics
Department of Physics
Central Michigan University, Mt. Pleasant, MI
- 1995 – 1998 Postdoctoral Researcher
Chemistry Division
Argonne National Laboratory, Argonne, IL

1989 – 1995 Teaching Assistant
Department of Physics
State University of New York, Albany, NY

1988 – 1989 Research Associate
Department of Physics
Indian Institute of Technology, Kanpur, India

Honors and Awards

Faculty Excellence Award from Northeastern Illinois University, Chicago. (2014)

Japan Society for the Promotion of Science Fellowship Award. (Spring 2002)

Research Professorship Award from Central Michigan University. (January 2002 – May 2002)

Teaching Assistant of the Year award from the Physics Department, SUNY, Albany (1992).

Award from SUNY, Albany in Recognition of Outstanding Scholarly Achievement (1992).

National fellowship from Tata Institute of Fundamental Research (TIFR), Bombay, India for the duration of studies for a M.S. degree in Physics (1985 – 1987).

Professional Activities

- Member of national alliance for “Advancing the Careers of Women in STEM at Predominantly Undergraduate Institutions through Professional Networks”, a National Science Foundation funded ADVANCE Program (2012 – 2016).
- Chair of the Committee on Membership, American Physical Society (2009); Member of the Committee on Membership, American Physical Society (2007-2009).
- Panel reviewer for the US Department of Energy, Graduate Research Fellowship Program (2010-present).
- Panel reviewer for the Department of Undergraduate Education, National Science Foundation (2007-present).
- Reviewer for National Science Foundation for proposals submitted to the Theoretical and Computational Chemistry program and the Materials Theory program. (2000 – present).
- Expert Reviewer for the Louisiana Board of Regents Sponsored Research Programs (2009 – 2011)
- Reviewer for journals: Physical Review B, Journal of Physics: Condensed Matter, Physical Review Letters and physica status solidi. (1999 – present)
- Session Chair, Focus session “D25: Optical Response of Molecules and Clusters: Theory”, March meeting of the American Physical Society, Los Angeles, CA (March 2005).
- Member of the external physics program review committee for Michigan Department of Education (2004 – 2005).
- Member of the physics content advisory committee for Michigan Department of Education teacher testing and certification program (2003 – 2005).
- Reviewer for the high school physics text, “Physics: Principles and Problems” by Zitzewitz, Glencoe (2004).
- Reviewer for college physics text, “College Physics” by Giambattista, Richardson and Richardson, Mc-Graw Hill (2003).

- Visiting Fellow Award from the JSPS (Japan Society for the Promotion of Science), Department of Electrical Engineering and Computer Science, Yamanashi University, Kofu, Japan. March – April 2002.
- Member of the local organizing committee of the 2nd International Symposium on Theory of Atomic and Molecular Clusters, September 15 – 20, 1996, Fontana, WI.
- Visiting Researcher at the Institute of Physical and Chemical Research (RIKEN), Wako, Japan. September – October 1993.
- Off-site consultant for scientific computing for the Institute of Physical and Chemical Research (RIKEN), Wako, Japan, 1993–1995.

Research Interests

Computational materials theory:

- First-principles modeling of geometric, electronic and magnetic properties of nanomaterials, atomic clusters, and cluster-molecule systems.
- Theoretical modeling and interpretation of nuclear quadrupole resonance spectroscopy, nuclear magnetic resonance spectroscopy and Mossbauer spectroscopy data for ionic solids, chalcogenides and molecules.

Membership in Professional Societies

Member of American Physical Society (APS); Member Sigma Pi Sigma ($\Sigma\Pi\Sigma$) Physics Honor Society.

Teaching Experience

- Introductory physics courses: College Physics sequence, Physics with Calculus/University Physics sequence.
- Undergraduate physics core/elective courses: Introduction to Modern Physics, Mechanics, Introductory Quantum Mechanics, Statistical and Thermal Physics, Solid State Physics, Electromagnetic Theory.
- Graduate courses: Quantum Mechanics, Advanced Quantum Mechanics, Contemporary Physics, Solid State Physics.

Students Directed

NEIU: Steve Burkland (2009-2011), Jayati Gohel (2010), Max Dzis (2010), Matthew Pembroke (2010), Sean Jennings (2010), Indira Bambur (2009), Greg Freimark (2009), Narin Ratanavade (2007, 2008), Omid Ahmadi (2006), Martin Senica (2006).

CMU: Vladimir Bubulac (M.S. Thesis, 2005), Kevin Daum (CMU, 2002–2003), James Randall (CMU, 2001), Mark Longhi (CMU, 2000)

Curriculum Development

Curriculum development for revamped honors undergraduate program at NEIU (2006 – 2009)

Course development of area science course in the revamped honors undergraduate program at NEIU (Spring 2007)

Curriculum development for interdisciplinary Ph.D. program in Science of Advanced Materials (SAM) at Central Michigan University. 2003 – 2004

Grants and Awards

1. October 2014 – July 2017: National Science Foundation, Improving Undergraduate STEM Education (IUSE) Grant. (Senior personnel and project coordinator).
2. August 2008 – July 2014: National Science Foundation, Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) program. (Principal Investigator with faculty from Physics, Math and Earth Science).
3. July 2010 – June 2011: Pilot National Institutes of Health (NIH) grant, from the Office of Research Development at NEIU. (Principal Investigator with P. Acioli, faculty from Physics)
4. May 2010 – August 2010: Summer Research Grant from the Student Center for Science Engagement (SCSE) at Northeastern Illinois University. (Co-Investigator)
5. May 2009 – August 2009: Summer Research Grant from the Student Center for Science Engagement (SCSE) at Northeastern Illinois University. (Co-Investigator)
6. July 2008 – June 2009: Committee on Organized Research (COR) grant from Northeastern Illinois University. (Co-Investigator)
7. July 2007 – June 2008: Committee on Organized Research (COR) grant from Northeastern Illinois University. (Co-Investigator)
8. July 2006 – June 2007: Committee on Organized Research (COR) grant from Northeastern Illinois University. (Principal Investigator)
9. July 2006 – June 2007: Research Community grant from Northeastern Illinois University. (Co-Principal Investigator)
10. January 2002 – May 2003: Presidential Research Initiative Award from Central Michigan University.
11. August 2001 – July 2002: Research Professorship Award from Central Michigan University.
12. August 2000 – July 2002: State of Michigan Research Excellence Fund (REF) grant award (Co-Principal Investigator).
13. September 1999 – August 2002: National Science Foundation (NSF), Division of Materials Research, Major Research Instrumentation (MRI) grant (Co-Principal Investigator).
14. July 1999 – August 2001: Petroleum Research Fund (PRF) National Type G grant award administered by the American Chemical Society (ACS). (Principal Investigator)
15. November 1998 – October 1999: Central Michigan University Faculty Research and Creative Endeavors (FRCE) grant. (Principal Investigator)

Publications

1. Silver and Gold mediated nucleobase bonding, S. Srinivas, P. H. Acioli, K Vogleonsger, N. Nicholson, J. Hibdon, N. Wrinkle, and D. Rutschman, Proceedings of the Eighth Annual Mentoring Institute Conference, editor N. Dominguez, pg. 1154-1157 (University of New Mexico, 2015).
2. Silver and Gold mediated nucleobase bonding, P. H. Acioli and S. Srinivas, *Journal of Molecular Modeling* 20, 2391 (2014).
3. Experiential Learning of Classical Mechanics Through Molecular Dynamics, P. H. Acioli and S. Srinivas, Proceedings of the World Conference on Physics Education, Istanbul, Turkey, editor M. Taşar, p 385-396 (Pegem Akademi, 2013).

4. An Exploration of the Potential Energy Surface of Ag₇CO, P. H. Acioli, S. Burkland, and S. Srinivas, *European Physical Journal D* 66, 215 (2012).
5. Density functional Theory study of Ag-Cluster/CO Interactions, P. H. Acioli, N. Ratanavade, M. R. Cline, and S. Srinivas, *Lecture Notes in Computer Science*, Springer Verlag (Heidelberg), Vol. 5545, 203 (2009).
6. Atomistic Description of Electric Dipole Polarizability in Si_nH_m, S. Srinivas, M. Yang, K. Jackson, and J. Jellinek, *Comp. Meth. Sci. and Eng.* 1108, 71 (2009).
7. A Density-Functional Study of the Structure and Self-Organization in Spin Clusters, S. Srinivas and E. Torikai, *Journal of Magnetism and Magnetic Materials*, Vol. 310, 2390 (2007).
8. Structure, Bonding and Magnetism in Manganese Clusters, P. Bobadova-Parvanova, K. A. Jackson, S. Srinivas and M. Horoi, *Journal of Chemical Physics*, Vol. 122, 014310 (2005)
9. First-principles investigations of the Structural and Electronic Properties of Small Beryllium Clusters, S. Srinivas and J. Jellinek, *Journal of Chemical Physics*, Vol. 121, 7243 (2004)
10. Emergence of antiferromagnetic ordering in Mn clusters, P. Bobadova-Parvanova, K. A. Jackson, S. Srinivas and M. Horoi, *Phys. Rev. A* 67, 61202 (2003)
11. Density-functional investigations of the spin ordering in Fe₁₃clusters, P. Bobadova-Parvanova, K. A. Jackson, S. Srinivas, and M. Horoi, *Physical Review B* Vol. 66, 195402 (2002)
12. Modeling the ¹¹⁹Sn Mossbauer Spectra of Chalcogenide Glasses using Density Functional Theory Calculations, K. Jackson, S. Srinivas, J. Kortus and M. Pederson, *Physical Review B*, Vol. 65, 214201 (2002)
13. Scanning the Potential Energy Surface of Iron Clusters: Novel Search Strategy, P. Bobadova-Parvanova, K. Jackson, S. Srinivas, M. Horoi, C. Köhler and G. Seifert, *Journal of Chemical Physics*, Vol. 116, 3576 (2002)
14. Theoretical Investigations of the Interaction of Silver Trimer with Ethylene Molecule, U. A. Salian, S. Srinivas and J. Jellinek, *Chemical Physics Letters*, Vol. 345, 312 (2001)
15. The interaction of Ammonia with small iron clusters: Infrared spectra and density functional calculations of Fe_n(NH₃)_m complexes, K. A. Jackson, M. B. Knickelbein, G. Koretsky and S. Srinivas, *Chemical Physics*, Vol. 262, 41 (2000)
16. Ab Initio Monte Carlo Investigations of Li Clusters, Sudha Srinivas and J. Jellinek, *Physica Status Solidi*, Vol. 217, 311 (2000)
17. Theoretical Investigations of Silver Clusters and Silver Ligand Systems, Sudha Srinivas, Umesh Salian and J. Jellinek, NATO Advanced Study Institute (ASI) Series on Metal-Ligand Interactions in Chemistry, Physics, and Biology, published by Kluwer Academic Publishers, Dordrecht, Netherlands (1999)
18. Ab Initio Monte Carlo: Application to Li₈, Julius Jellinek, Sudha Srinivas and Piercarlo Fantucci, *Chemical Physics Letters*, Vol. 288, 705 (1998)
19. Theory of Hyperfine Interactions Associated with the Negative Muon in Lanthanum Copper Oxide High T_c System, Sudha Srinivas, S.B.Sulaiman, N. Sahoo, T.P. Das, E. Torikai, K. Nishiyama and K. Nagamine, *Hyperfine Interactions*, Vol. 105, 167 (1997)
20. Probing Interaction of Paramagnetic Electron with Conduction Electron in High T_c Superconductor LaSrCuO by (μ⁻O) Spin Relaxation, E. Torikai, K. Nagamine, K. Nishiyama, E. Hirose, Y. Ikedo, T. Hashimoto, P. Birrer, I. Tanaka, H. Kojima, S. Srinivas, T.P. Das, S. Maekawa, K. Yamada, and Y. Endoh, *Hyperfine Interactions*, Vol. 105, 175 (1997)

21. Ab Initio Investigations on Sb_4 Analogous Zintl Clusters, F. Hagelberg, Sudha Srinivas, N. Sahoo, T.P. Das and K.G. Weil, *Physical Review A*, Vol. 53, 353 (1996)
22. Interaction of Paramagnetic Electron with High T_c Supercurrent in $La_{2-x}Sr_xCuO_4$ studied by Negative Muon Probe, E. Torikai, K. Nagamine, K. Nishiyama, E. Hirose, P. Birrer, I. Tanaka, H. Kojima, S. Srinivas, T.P. Das and S. Maekawa, *Hyperfine Interactions*, Vol. 97-98, 387 (1996)
23. Theory of Nuclear Quadrupole Interactions in Solid Fluoromethanes with Implanted $^{19}F^*$ Nuclei: Coupling of HF^* and Host Molecule, G. Gowri, T. Briere, S. Srinivas, T.P. Das, M. Frank and W. Kreische, *Zeitschrift Fur Naturforschung A*, Vol. 51, 565 (1996)
24. First-Principles Investigation of Nitrogen Nuclear Quadrupole Interactions in the RDX ($C_3H_6N_6O_6$) System, Ranjit Pati, Sudha Srinivas, T. Briere, N. Sahoo, T.P. Das and S. N. Ray, *Journal of Physical Chemistry*, Vol. 99, 9051 (1995)
25. First Principles Investigation of $^{19}F^*$ Nuclear Quadrupole Interaction in IV Group Tetrafluorides, H.S. Cho, T. Briere, S. Srinivas, C. Russel, G. Gowri, R. Pati, T.P. Das, M. Frank, W. Kreische and K. B. Nielsen, *Hyperfine Interactions*, Vol. 96, 213 (1995)
26. Theory of the Location and Associated Hyperfine Properties of the Positive Muon in La_2CuO_4 , S.B. Sulaiman, Sudha Srinivas, N. Sahoo, F. Hagelberg, T.P. Das, E. Torikai and K. Nagamine, *Physical Review B*, Vol. 49, 9879 (1994)
27. Theory of the Location and Associated Hyperfine Properties of the Positive Muon in La_2CuO_4 , S.B. Sulaiman, N. Sahoo, Sudha Srinivas, F. Hagelberg, T.P. Das, E. Torikai and K. Nagamine, *Hyperfine Interactions*, Vol. 84, 87 (1994)
28. Location and Associated Hyperfine Properties of μ^+ in La_2CuO_4 , S.B. Sulaiman, N. Sahoo, Sudha Srinivas, F. Hagelberg, T.P. Das, E. Torikai and K. Nagamine, *Hyperfine Interactions*, Vol. 79, 901 (1993)
29. Local Hyperfine Field Vector of Positive Muon in Mono-Domain Single Crystal of Antiferromagnetic La_2CuO_4 , E. Torikai, H. Ishihara, K. Nagamine, H. Kitazawa, I. Tanaka, H. Kojima, S.B. Sulaiman, S. Srinivas and T.P. Das, *Hyperfine Interactions*, Vol. 79, 915 (1993)
30. Behavior of Positive Muons in High T_c Superconductors $La_{2-x}Sr_xCuO_4$, E. Torikai, K. Nagamine, H. Kitazawa, I. Tanaka, H. Kojima, S.B. Sulaiman, S. Srinivas and T.P. Das, *Hyperfine Interactions*, Vol. 79, 921 (1993)
31. Momentum Density and Fermi Surface of $YBa_2Cu_3O_7$, R. Prasad and Sudha Srinivas *Physica C*, Vol. 162-164, 1335 (1989). Proceedings of the International Conference on High T_c Superconductivity, Stanford, CA (July 1989)

Invited Seminars

1. Electric Polarizability in Finite Systems
Talk, University at Albany, State University of New York, Albany, NY, October 2012
2. Promoting Student Engagement through Interdisciplinary Endeavors
Seminar, De Paul University, Chicago, IL, January 2009
3. Engaging Students Through a Multidisciplinary Curriculum
Pedagogical Issues Seminar, University of Chicago, Chicago, IL, March 2008
4. Computational Modeling of Magnetic Clusters
Mathematical Sciences Seminar, Northeastern Illinois University, Chicago, IL, December 2005
5. First-principles investigations of the Structural and Electronic Properties of Metal Clusters
Seminar, Physics Department, Oakland University, Rochester, MI, April 2003

6. First-principles investigations of the Structural and Electronic Properties of Metal Clusters Seminar, Physics Department, Oakland University, Rochester, MI, April 2003
7. First-principles investigations of the Structural and Thermal Properties of Metal Clusters Seminar, Physics Department, Jackson State University, Jackson, MS, May 2002
8. Theoretical Studies of Alkali and Noble Metal Clusters Seminar, Department of Electronics, Yamanashi University, Kofu, Yamanashi, Japan, April 2002
9. Theoretical Studies of Transition Metal Clusters and Cluster Molecule Systems. Seminar, Materials Design by Computer Simulation Laboratory, Institute for Materials Research, Tohoku University, Sendai, Japan, April 2002
10. DFT Studies of Metal Clusters and Cluster Molecule Systems Seminar, Cluster Research Laboratory, Toyota Technological Institute, East Tokyo Laboratory, Genesis Research Institute, Inc., Ichikawa, Chiba, Japan, April 2002

Presentations at Meetings/Conferences

1. The Peer Enhanced Experiential Research in STEM (PEERS) project at Northeastern Illinois University, S. Srinivas, Poster, Transforming STEM Education 2015, American Association of Colleges and Universities, Seattle, WA, November 11-14, 2015.
2. Using Small Group, Peer Mentoring to Support Faculty Development and Career Advancement, Joanne Smieja, Luanne Tilstra, Sudha Srinivas, Vicki-Lyn Holmes, and Stephanie Conant, Panelist, Transforming STEM Education 2015, American Association of Colleges and Universities, Seattle, WA, November 11-14, 2015.
3. A Density-Functional Study of the Structure and Self-Organization in Spin Clusters, S. Srinivas and E. Torikai, Contributed poster, International Conference on Magnetism, Kyoto, Japan, August 20 – 25, 2006.
4. A Density-Functional Study of the Structure and Self-Organization in Spin Clusters, S. Srinivas and E. Torikai, Contributed poster, International Conference on Magnetism, Kyoto, Japan, August 20 – 25, 2006.
5. Mn clusters: a nanoscale magnetic transition, Sudha Srinivas, K. A. Jackson, P. Bobadova-Parvanova, and M. Horoi, Contributed talk, March meeting of the American Physical Society, Los Angeles, March 21 – 25, 2005.
6. A First-Principles Study of Lithium Hydride Clusters, Vladimir Bubulac, Sudha Srinivas, and Julius Jellinek, Poster, March meeting of the American Physical Society, Los Angeles, March 21 – 25, 2005.
7. Theoretical Investigations of the Spin Ordering in Manganese Clusters, P. Bobadova-Parvanova, K. A. Jackson, S. Srinivas, M. Horoi, Contributed talk, March meeting of the American Physical Society, Austin, TX, March 3 – 7, 2003.
8. Theoretical Investigations of the Interaction of Silver Clusters with Ethylene, Sudha Srinivas, U.A. Salian and J. Jellinek, Contributed talk, March meeting of the American Physical Society, Indianapolis, IN, March 18 – 22, 2002.
9. Magnetic transitions in Fe₁₃ clusters: interplay between geometric parameters and spin ordering, P. Bobadova-Parvanova, K. A. Jackson, S. Srinivas, M. Horoi, Contributed talk, March meeting of the American Physical Society, Indianapolis, IN, March 18 – 22, 2002.

10. Ab Initio Monte Carlo: Application to Small Li_n and Be_n Clusters, Sudha Srinivas and Julius Jellinek, Oral presentation, American Physical Society Centennial Meeting, March 20 – 26, 1999, Atlanta, Georgia
11. Theoretical and Experimental Investigations of Interaction of Negative Muon with LaSrCuO System, S. Srinivas, S. B. Sulaiman, N. Sahoo, T. P. Das, E. Torikai, E. Hirose, Y. Ikedo, T. Hashimoto, I. Tanaka, H. Kojima, and K. Nagamine, Poster presentation, American Physical Society Centennial Meeting, March 20 – 26, 1999, Atlanta, Georgia
12. Ab Initio-based Monte Carlo: Application to Small Lithium Clusters, Sudha Srinivas and Julius Jellinek, Oral contribution, International Workshop on Massively Parallel Applications in Computational Material Science, August 26 – 29, 1998, Paderborn, Germany.
13. Silver and Silver Halide Clusters: A Theoretical Study, Sudha Srinivas and Julius Jellinek, Poster presentation, Gordon Conference on Clusters, Nanocrystals, and Nanomaterials, July 27 – August 1, 1997, Plymouth, NH
14. Ab Initio-Based Monte Carlo Studies of the Structural and Thermal Properties of Li_n Sudha Srinivas and Julius Jellinek, Poster presentation, Gordon Conference on Clusters, Nanocrystals, and Nanomaterials, July 27 – August 1, 1997, Plymouth, NH
15. Ab Initio Monte Carlo: Application to Li_n , Sudha Srinivas, J. Jellinek and P. Fantucci, Oral presentation, Midwest Theoretical Chemistry Conference, May 22 – 24, 1997, Urbana, IL
16. A Theoretical Study of Geometries and Electronic Structure of Small Silver and Silver Halide Clusters, Sudha Srinivas and Julius Jellinek, Poster, Midwest Theoretical Chemistry Conference, May 22 – 24, 1997, Urbana, IL
17. An Ab Initio Monte Carlo Study of Structural and Thermal Properties of Li, Sudha Srinivas, Julius Jellinek, Piercarlo Fantucci, Oral presentation, 213rd American Chemical Society Meeting: Symposium on Recent Developments in Density Functional Theory, April 13 – 17, 1997, San Francisco, CA
18. A Theoretical Study of the Structures and Energies of Small Silver Clusters, Sudha Srinivas and Julius Jellinek, Poster presentation, 213rd American Chemical Society Meeting: Symposium on Recent Developments in Density Functional Theory, April 13 – 17, 1997, San Francisco, CA

Local Presentations at NEIU

1. Dielectric response in finite systems, Sudha Srinivas, Oral Presentation, Faculty Research and Creative Activities Symposium, NEIU, Chicago, IL, November 2012.
2. Physics of finite systems, Sudha Srinivas, Guest lecture, Honors Seminar Class, NEIU, Chicago, IL, February 2011.
3. Cluster Research, Sudha Srinivas, Guest lecture, Honors Seminar Class, NEIU, Chicago, IL, February 2010.
4. Modeling microscopic materials, Sudha Srinivas, Guest lecture, Honors Seminar Class, NEIU, Chicago, IL, October 2009.

Service on Committees

Service at Northeastern Illinois University (Fall 2005 – present)

- Departmental level: Undergraduate Advisor (Physics, 2005 – 2011)
 Department Personnel Committee (Physics, 2005 – present)
 Executive Board Representative, SCSE (2009-2010)
 Faculty Search Committee (Physics, 2005 – 2006, 2009, 2015- (chair))

- College level: Director, Student Center for Science Engagement (SCSE) (2012 – 2014)
 Coordinator (SCSE) Search Committee (2011-2012)
 Advisor (SCSE) Search Committee (2009-2010, 2012-2013)
 Department Personnel Committee (Earth Science, 2008 – 2010, 2015 – 2016, chair)
 Faculty Search Committee (Chemistry, 2008 – 2009)
 Faculty Search Committee (Earth Science, 2007 – 2008, 2009 – 2010)
 Faculty Search Committee (Biology, 2006 – 2007)
 Academic Affairs Committee (2005 – 2006)
- University level: Audrey Reynolds Distinguished Teaching Award Committee (two terms: 2009 – 2010, 2010 – 2011)
 Bernard Brommel Distinguished Research Professor Award Committee (2008)
 Associate Dean Search, College of Arts and Sciences (2014)
 Honors Faculty (2009 – present)
 Honors Council (2006 – 2009)
 Writing Task Force (2007)
 Center for Teaching and Learning Liaison Faculty (2005 – 2006)
 Faculty Search Committee, College of Education (2008)
- Local level: Participating Faculty in Science Central (2005 – 2006, 2006 – 2007)
 Judge, Chicago Academy of Science, Science Fair (2006, 2007)
 Career Day Presenter, Naperville School District 204 (2007)
- National level: Member, Alliance for Advancing the Careers of Women in STEM, National Science Foundation ADVANCE Program (2012-2015).
 Panel Reviewer for U.S. Department of Energy (2010, 2012)
 Chair, Committee on Membership, American Physical Society (2009)
 Member, Committee on Membership, American Physical Society (2007 – 2009)
 Expert Reviewer for the Louisiana Board of Regents Sponsored Research Programs (2009 – 2011)
 Expert Reviewer for National Science Foundation (2005 – present)
 Reviewer for Journals: Physical Review, Journal of Physics, Journal of Chemical Physics A, B (2005 – present)

Service at Central Michigan University (Fall 1998 – Summer 2005)

- Departmental level: Graduate Committee
 Department Curriculum Committee
 Physics Faculty Search Committees (3)
 Department Personnel Committee
- College level: College Curriculum Committee
 College Personnel Committee
- University level: Committee on Seminars and Conferences
 Speaker Series Committee, co-chair
- State level: Consultant and Program Reviewer for Michigan State Department of Education Teacher Education and Certification Programs.
- National level: Session Chair, Cluster Theory Session, March 2005 Meeting of the American Physical Society (APS).
 Reviewer for National Science Foundation, Physical Review, Journal of Physics