

# Curriculum Vitae

(updated April 2007)

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## Employment/Professional Experience:

2004-	Associate Professor (tenured), Physics Dept., USF, Tampa, FL
2000-04	Assistant Professor, Physics Dept., University of South Florida, Tampa, FL
1998-00	Assistant Professor for Research, Advanced Materials Research Institute, University of New Orleans, LA
1998	National Research Council Associate, Rome Labs, Hanscom AFB, MA
1995-98	Postdoctoral Researcher, Physics Dept., Northeastern Univ., Boston, MA
1994-95	Postdoctoral Researcher, University of Nebraska, NE

## Education:

1993	Ph. D (Physics), Indian Institute of Science, Bangalore, India
1986	M. Sc (Physics), Madura College, Madurai, India
1984	B. Sc (Physics), Madura College, Madurai, India

## Areas of Specialization

- Functional nanostructured materials: Fabrication, Properties, Applications
- Magnetism at the nanoscale
- Electronic and magnetic properties of complex oxides
- Multifunctional materials

## Research Interests

- Synthesis, assembly and electromagnetic properties of nanoparticles and nanocomposites
- Fabrication and physical properties of functional oxide thin films and heterostructures
- Ferrofluids
- Spin electronic materials and devices
- Spin polarized Andreev Reflection and Tunneling
- Magnetocaloric effect
- Cooperative magnetic phenomena in molecular magnets
- Radio-frequency and microwave properties of materials
- Physics of strongly correlated electron systems

## Honors, Distinctions, Awards, Significant Achievements

- Invited Speaker in the Magnetism and Spintronics session, IUMRS-International Conference on Advanced Materials (ICAM), Bangalore, India, October 2007
- Invited Speaker in Symposium J “Materials for Advanced Sensors and Devices” at the International Conference on Materials for Advanced Technologies (ICMAT 2007), Singapore, July 2007
- Invited Speaker, 13<sup>th</sup> Czech and Slovak Conference on Magnetism, Kosice, Slovakia, July 2007
- Co-organizer of DMP/GMAG sponsored Focus Topic –“Magnetic Nanostructures: Materials and Phenomena” at the 2007 APS March meeting to be held in Denver, CO
- Invited Speaker at the Nanomaterials Symposium, TMS 2007 Conference, Orlando, FL
- Research nugget featured on NSF-CTS program website: <http://www.nsf.gov/eng/cts/nuggets/1415/index.jsp>
- Nominee, APS GMAG Executive Committee – Member-at-Large position (2006)
- Publications Editor and Program Committee member for 10<sup>th</sup> joint INTERMAG/MMM Conference, Baltimore, MD (Jan. 2007) and the MMM conference in Nov. 2007 to be held in Tampa, FL.
- Brought in over \$1M worth of PI grants over the past 6 years from NSF and DoD agencies.
- Co-PI and core group member on several major interdisciplinary education and instrumentation grants such as the IGERT, REU, MRI from NSF.
- Invited speaker at the Materials Research Society (MRS) Fall 2005 meeting, Boston, MA
- Appointed by the Dean to a two year-term on the College of Arts and Sciences Tenure and Promotion Committee (2005)
- Tenured and promoted to Associate Professor at University of South Florida (2004)
- Publications Editor and Program Committee member for the 50<sup>th</sup> Conference on Magnetism and Magnetic Materials (MMM), Nov. 2005 (San Jose, CA)
- Session Chairman, DQ “Soft magnetic materials I”, 49<sup>th</sup> Conference on Magnetism and Magnetic Materials (MMM), Nov. 2004, Jacksonville, FL
- Advisory Committee member of Low Temperature Physics (LT-24) conference (Orlando, 2005)
- Invited speaker at the Processing and Fabrication of Advanced Materials (PFAM-13) international conference to be held in Singapore in December 2004
- Invited speaker at the second Seeheim Conference on Magnetism (SCM 2004), Seeheim, Germany (June 26 – July 2, 2004)
- Invited speaker at the IEEE NTC Quantum Device Technology Workshop, May 2004, Clarkson University, Potsdam, NY (<http://www.clarkson.edu/CQDT/>)
- Patent disclosure: (WO/2004/079340) MEASUREMENT OF POINT CONTACT ANDREEV-REFLECTION CHARACTERISTICS OF HALF-METALLIC THIN FILMS

- USF President's Award for Faculty Excellence (2003)
- Invited speaker at the American Physical Society (APS) March meeting in 2003
- Faculty mentor in NSF-REU site on "Integrated Interdisciplinary Nanoscience REU" at USF (2003-2006)
- Awarded Summer Research Grant from Southeastern Universities Research Association (SURA) to support graduate student research at Oak Ridge National Laboratory (2003 & 2001)
- Proposal reviewer for US Department of Energy (2003)
- Co-PI and core group member of NSF-IGERT (Interdisciplinary Graduate Education, Research and Training) grant awarded to USF (2002)
- Awarded a 2-year subcontract from Materials Modification Inc. in an NSF Phase 2 Small Business Innovative Research (SBIR) grant (2002)
- Co-authored paper on discovery of nanoscale Kagome molecular magnetism highlighted under 'News and Views' in the Oct. 1, 2002 issue of Nature Materials.
- Proposal reviewer for US Army Research Office (2002)
- Local Chairman, 47<sup>th</sup> Annual conference on Magnetism and Magnetic Materials (MMM), Tampa, Nov. 2002
- Patent disclosure on "Nanoscale Kagome Lattices" filed jointly with Dr. Mike Zaworotko and Mr. Brian Moulton of USF Chemistry department (2002).
- Recipient of a Nanoscale Exploratory Research (NER) grant from National Science Foundation (NSF) under the National Nanotechnology Initiative program (2001)
- Invited speaker and session chair, 8<sup>th</sup> Annual joint INTERMAG/MMM conference, San Antonio, TX (2001)
- Invited speaker, International Conference on Materials for Advanced Technologies (ICMAT), Singapore (2001)
- Panelist and proposal reviewer for National Science Foundation –Division of Electrical Communication Systems (ECS), Division of Materials Research (DMR) & Division of Manufacturing and Industrial Innovation (DMII). (1999 – present)
- Awarded Louisiana State Board of Regents Support Fund under the Industrial Ties Research Support (ITRS) program at University of New Orleans. (1999)
- Recipient of National Research Council (NRC) Associateship from Air Force Research Laboratory, Hanscom AFB (1998)
- Invited Speaker and session chair, American Physical Society (APS) annual March meeting (1997)
- Organizing committee: Conference on Spectroscopies of Novel Superconductors, Cape Cod, MA (1997)
- Referee for journals: Physical Review Letters, Physical Review B, Journal of Applied Physics, IEEE Transactions on Magnetism, Journal of Magnetism and Magnetic Materials, Journal of Physics and Chemistry of Solids (1996 – present)

- Member of Professional Societies: American Physical Society (APS), Materials Research Society (MRS), The Metals, Materials and Minerals Society (TMS) (1995 – present)
- Selected to participate in two international workshops on superconductivity at the International Center for Theoretical Physics (ICTP) in Trieste, Italy with full financial assistance (1991, 1992)
- Recipient of first prize in the Young Physicists Colloquium (national level competition), Saha Institute of Nuclear Physics, Calcutta, India (1992)
- Over 35 talks and colloquia in Universities and National Laboratories
- Over 50 contributed presentations at major professional conferences
- Over 90 publications in peer-reviewed journals

## Teaching/Education related activities

Experienced in teaching a wide range of undergraduate and graduate courses in Physics and Materials Science

Courses taught/scheduled at the University of South Florida:

- PHY 2048 (Calculus-based General Physics 1): Fall 2001
- PHY 2049 (Calculus-based General Physics 2): Fall 2000, Spring 2001, Spring 2002
- PHZ 2103 (Problem Solving): Fall 2000, Spring 2001
- PHY 3101 (Modern Physics): Fall 2002, Spring 2003
- PHY 3221 (Mechanics I): Fall 2004, Fall 2005, Fall 2006
- PHY 4222 (Mechanics II): Spring 2005, Spring 2006, Spring 2007
- PHY 6938 (Materials Physics 1): Fall 2003, Fall 2004 (Graduate course)
- PHY 6938 (Materials Physics 2: Applied Materials): Spring 2004 (Grad course)

2000-present Physics department Graduate Committee

2000-present Major Professor & Thesis advisor for 10 graduate students

## Graduate Students: (USF)

- **Dr. Jeff Sanders**, M.S. (2003). **Graduated with Ph.D. degree in Summer 2006.** (Dissertation: “Spin polarization measurements and sensor applications in thin films and carbon nanotube based devices”)
- **Dr. Ranko Heindl**, M.S. (2002). **Graduated with PhD in Fall 2006. Awarded National Research Council Postdoctoral Associateship and joining NIST (Boulder, CO) in March 2007**(Dissertation: “Tunable ferrite-ferroelectric films for microwave applications”)
- **Ms. Natalie Frey**, M.S. 2004, PhD candidate, **NSF-IGERT Fellow** (Targeted dissertation submission in Spring 2008; Surface and interface phenomena in magnetic nanostructures and thin films)
- **Mr. James Gass**, Ph. D candidate (in my group since Spring 2004). Targeted dissertation submission in Fall 2007; Functional magnetic nanocomposites)
- **Ms. Marienette Morales**, Ph. D student (Spring 2006 - ); Static and dynamic properties of ferrofluids)
- **Mr. Himanshu Verma**, Ph. D student (Spring 2007-)
- **Mr. Drew Rebar**, M.S. student (Fall 2004 – Summer 2006).**Graduated with MS degree.** (Magnetocaloric effect in ferrite nanoparticles and clathrates)
- **Ms. Chamila Siyambalapatiya**, M.S. student (Fall 2004 – Summer 2006). **Graduated with MS degree.** (Growth, electrical and magnetic properties of Fe<sub>3</sub>O<sub>4</sub> thin films)

- **Ms. Jessica Wilson**, M.S. (2002 – 2004). **Graduated with MS degree.** (Synthesis and properties of magnetic polymer nanocomposites)
- Three Ph.D students in my group (Ranko, Jeff and Natalie) were/are recipients of NSF IGERT fellowships.

### Postdoctoral Advisees:

- **Dr. Srinath Sanyadanam**, USF (Jan. 2004 – July 2006). Current job: Assistant Professor, Physics Department, Hyderabad Central University, Hyderabad, India
- **Dr. Pankaj Poddar**, USF (Oct. 2002 – March 2005). Current job: Staff Scientist, Nanoscience Division, National Chemical Laboratories, Pune, India.
- **Dr. Leonard Spinu**, University of New Orleans (1999 – 2000), Current job: Asst. Prof. of Physics, University of New Orleans.
- **Dr. Jason Wiggins**, University of New Orleans (1998 – 1999), presently Nanotechnology Programme Manager at Oxford University, UK.

### Undergraduate Advisees:

- **Ms. Jessica Wilson** (Summer 2001. Joined group as an M.S. student in Spring 2002)
- **Ms. Krystal McCann** (Spring 2002)
- **Mr. Drew Rebar** (Summer 2003. REU student)
- **Mr. Josef Norgan** (Summer, Fall 2003)
- **Mr. James Almand** (Summer, Fall 2004, joined as PhD student in Fall 2006)
- **Mr. Joshua Poling-Goldenne** (Summer 2004. REU student)
- **Ms. Suzanne Morrow** (Summer 2005, REU student, continued research in 2006)
- **Ms. Bethany Zack** (Summer 2005, REU student)
- **Ms. Melody Miner** (Summer 2006, REU student)
- **Mr. Aaron Stalford** (Summer 2007)

### Grants:

\* Multiple PI grants and sustained funding in excess of \$1M received since 2001 from NSF, DARPA and ARO

\* Co-PI and senior mentor in several major multi-investigator grants exceeding \$4M at USF such as NSF-IGERT, NSF-MRI and REU programs

### List of publications –submitted, in press, published: (reverse chronological order)

1. “Multifunctional ferromagnetic-ferroelectric thin films for microwave applications” –R. Heindl, **H. Srikanth**, S. Witanachchi, P. Mukherjee, A. Heim, G. Matthews, S. Balachandran, S. Natarajan and T. Weller, **Applied Physics Letters** (submitted, 2007)
2. “Growth of barium hexaferrite nanoparticle coatings by laser-assisted spray pyrolysis” –G. Dedigamuwa, P. Mukherjee, H. Srikanth and S. Witanachchi, **J. Amer. Ceram. Soc.** (accepted 2007)
3. “Static and dynamic magnetic properties of composite Au-Fe<sub>3</sub>O<sub>4</sub> nanoparticles” –N. A. Frey, S. Srinath, **H. Srikanth**, T. Chao and S. Sun, **IEEE Transactions on Magnetism** (in press, 2007)

4. "Structure, magnetism and tunable microwave properties of PLD-grown Barium ferrite/Barium strontium titanate bi-layer films" –R. Heindl, **H. Srikanth**, S. Witanachchi, P. Mukherjee, T. Weller, A. S. Tatarenko and G. Srinivasan, **Journal of Applied Physics** **101**, 09M503 (2007)
5. "Static and dynamic magnetic properties of Co nanoparticles" –S. Srinath, P. Poddar, B. L. V. Prasad, J. Gass and **H. Srikanth**, **Journal of Nanoscience and Nanotechnology** (submitted, 2006)
6. "Measurement of spin polarization of doped strontium ruthenates using point contact Andreev reflection (PCAR)" –G. T. Woods, J. Sanders, S. Kolesnik, T. Maxwell, **H. Srikanth**, B. Dabrowski, M. S. Osofsky and R. J. Soulen., Jr., **Physical Review B** (submitted 2006)
7. "Magnetic anisotropy and magneto-caloric effect (MCE) in NiFe<sub>2</sub>O<sub>4</sub> nanoparticles" –J. Gass, N. A. Frey, M. B. Morales, M. J. Miner, S. Srinath and **H. Srikanth**, **MRS Proceedings** **2006** (accepted)
8. "Synthesis and magnetic characterization of NiFe nanowires in nanoporous Si template" –S. Aravamudhan, K. Luongo, S. Bhansali, P. Poddar and **H. Srikanth**, **Applied Physics A: Materials Science and Engineering** (accepted, 2007)
9. "Anomalous conductivity and positive magnetoresistance in FeSi-SiO<sub>2</sub>-Si structures in the vicinity of a resistive transition" –S. Witanachchi, H. Abou-Mourad, **H. Srikanth** and P. Mukherjee, **Applied Physics Letters** **90**, 052102 (2007)
10. "Magnetocaloric effect in ferrite nanoparticles" –P. Poddar, J. Gass, D. Rebar, S. Srinath, **H. Srikanth**, S. A. Morrison and E. E. Carpenter, **Journal of Magnetism and Magnetic Materials** **307**, 227 (2006)
11. "Exchange bias in CrO<sub>2</sub>/Cr<sub>2</sub>O<sub>3</sub> bilayer thin films" –S. Srinath, N. A. Frey, **H. Srikanth**, G. Miao and A. Gupta, **Advances in Science and Technology** **45**, 2528 (2006) Trans Tech Publications
12. "Magnetic anisotropy in CrO<sub>2</sub> and epitaxial CrO<sub>2</sub>/Cr<sub>2</sub>O<sub>3</sub> bilayers" –N. A. Frey, S. Srinath, **H. Srikanth**, M. Varela, S. Pennycook, G. Miao and A. Gupta, **Physical Review B** **74**, 024420 (2006)
13. "Giant Magnetocaloric effect in clathrates" –S. Srinath, J. Gass, D. J. Rebar, G. T. Woods, **H. Srikanth** and G. S. Nolas, **Journal of Applied Physics** **99**, 08K902 (2006)
14. "Magnetization in insulating phases of Ti<sup>4+</sup> doped SrFeO<sub>3-d</sub>" –S. Srinath, M. Mahesh Kumar, K. Sahner, M. L. Post, M. Wickles, R. Moos and **H. Srikanth**, **Journal of Applied Physics** **99**, 08S904 (2006)
15. "Superparamagnetic polymer nanocomposites with Fe<sub>3</sub>O<sub>4</sub> nanoparticle dispersions" –J. Gass, P. Poddar, J. Almand, S. Srinath and **H. Srikanth**, **Advanced Functional Materials** **16**, 71 (2006)
16. "Metal-organic framework diversity via hetero-coordination of a multifunctional ligand: SrAl<sub>2</sub> and a novel (3,4) connected network, J. F. Eubank, R. D. Walsh, P. Poddar, H. Srikanth, R. W. Larsen and M. Eddaoudi, **Crystal Growth and Design** **6**, 1453 (2006)
17. "Observation of a new magnetic anomaly below the ferromagnetic Curie temperature in Yb<sub>14</sub>MnSb<sub>11</sub>" –S. Srinath, P. Poddar, **H. Srikanth**, B. C. Sales and D. Mandrus, **Physical Review Letters** **95**, 227205 (2005)
18. "Ferromagnetic ordering in nanostructured Mn-doped InP" –P. Poddar, Y. Sahoo, **H. Srikanth** and P. N. Prasad, **Applied Physics Letters** **87**, 062506 (2005)
19. "Chemically fabricated magnetic quantum dots of In<sub>1-x</sub>Mn<sub>x</sub>P" –Y. Sahoo, P. Poddar, **H. Srikanth**, D. W. Lucey and P. N. Prasad, **J. Physical Chemistry B** **109**, 15221 (2005).
20. "Magnetization and magnetoresistance in insulating phases of SrFeO<sub>3-d</sub>" –S. Srinath, M. Mahesh, M. L. Post and **H. Srikanth**, **Phys. Rev. B** **72**, 054425 (2005)

21. "Microstructure and magnetism in Barium Strontium Titanate (BSTO) – Barium Hexaferrite (BaM) multilayers –N. A. Frey, R. Heindl, S. Srinath, **H. Srikanth** and N. J. Dudney, **Materials Research Bulletin** **40**, 1286 (2005)
22. "Superparamagnetism and magnetocaloric effect in functional magnetic nanostructures" –**H. Srikanth** and J. Gass, **Reviews of Advances in Materials Science** **10**, 398 (2005)
23. "Polypyrrole composites for shielding applications" –O. Yavuz, M. K. Ram, M. Aldissi, P. Poddar and **H. Srikanth**, **Synthetic Metals** **151**, 211 (2005)
24. "Magnetic properties of polydisperse and monodisperse NiZn ferrite nanoparticles interpreted in a surface structure model" –R. Swaminathan, M. McHenry, P. Poddar and **H. Srikanth**, **Journal of Applied Physics** **97**, 10G104 (2005)
25. "Growth and characterization of sputtered BSTO/BaM multilayers" –S. Srinath, N. A. Frey, R. Hajndl, **H. Srikanth**, K. R. Coffey and N. J. Dudney, **Journal of Applied Physics** **97**, 10J115 (2005)
26. "Spin polarization measurements on polycrystalline strontium ruthenates using point contact Andreev reflection" –J. T. Sanders, G. T. Woods, P. Poddar, **H. Srikanth** and B. Dabrowski, **Journal of Applied Physics** **97**, 10C912 (2005)
27. "Observation of charge ordering and the ferromagnetic transition in single crystal LSMO using RF transverse susceptibility" –G. T. Woods, P. Poddar, **H. Srikanth** and Y. M. Mukovskii, **Journal of Applied Physics** **97**, 10C104 (2005)
28. "Probing magnetic anisotropy and spin polarization in spintronic materials" –P. Poddar, G. T. Woods, S. Srinath and **H. Srikanth**, **IEEE Transactions on Nanotechnology** **4**, 59 (2005)
29. "Materials processing and tunable magnetism in polymer nanocomposites" –**H. Srikanth**, P. Poddar and J. Gass, **Processing and Fabrication of Advanced Materials** (Invited Paper, World Scientific, Singapore, in press, 2005)
30. "Inter-particle interactions and magnetism in manganese-zinc ferrite nanoparticles" –P. Poddar, **H. Srikanth**, S. A. Morrison and E. E. Carpenter, **Journal of Magnetism and Magnetic Materials** **288C**, 443 (2005)
31. "Synthesis and physical properties of MnZn ferrite and NiMnZn ferrite-polyaniline nanocomposite particles" –O. Yavuz, M. K. Ram, M. Aldissi, P. Poddar and **H. Srikanth**, **Journal of Materials Chemistry** **15**, 810 (2005)
32. Conference report on Seeheim Conference on Magnetism (SCM2004) –**Srikanth Hariharan**, **Physica Status Solidi (a)** **201**, 2611 (2004) [Report at the invitation of the publisher, Wiley-VCH]
33. "Directed assembly of metal-organic cubes from deliberately pre-designed molecular building blocks" –Y. Liu, V. Kravtsov, P. Poddar, **H. Srikanth** and M. Eddaoudi, **Chemical Communications** 2806-07 (2004)
34. "Surface modification and magnetism in Co-implanted BSTO/Barium Hexaferrite composite films" –R. Hajndl, S. Srinath and **H. Srikanth**, **Journal of the American Ceramic Society** (ICF-9 Proceedings, p. 155, 2005)
35. "Assembly of monodisperse magnetic nanoparticles using the Langmuir-Blodgett technique and their magnetic properties" –P. Poddar, **H. Srikanth** and G. Markovich, (Book Chapter, **Supramolecular engineering of conducting materials**, Ed. M. K. Ram and M. Aldissi, TransWorld Research (2004)
36. "Magnetic properties of conducting polymer doped with Mn-Zn ferrite nanoparticles" – P. Poddar, J. L.

- Wilson, **H. Srikanth**, S. A. Morrison and E. E. Carpenter, **Nanotechnology** **15**, S570 (2004)
37. “Analyzing point contact Andreev reflection” –G. T. Woods, R. J. Soulen, Jr., I. I. Mazin, M. S. Osofsky, B. Nadgorny, J. Sanders, **H. Srikanth**, R. Datla and C. B. Eom, **Physical Review B** **70**, 054416 (2004)
38. “Magnetism and RF dynamics in nanocomposite materials” –**H. Srikanth** and P. Poddar, **Journal of Metastable and Noncrystalline Solids** **23**, 355 (2005) Trans Tech Publications
39. “In-situ synthesis and magnetic properties of polystyrene/polypyrrole nanocomposite materials with uniformly dispersed iron nanoparticles” –**H. Srikanth**, P. Poddar, J. L. Wilson, K. Mohomed and J. P. Harmon, **Mat. Res. Soc. Symp. Proc. Vol. 788**, 243 (2004)
40. “Synthesis and magnetic properties of polymer nanocomposites with embedded iron nanoparticles” –J. L. Wilson, N. A. Frey, P. Poddar, **H. Srikanth**, K. Mohomed, J. P. Harmon, S. Kotha and J. Wachsmuth **Journal of Applied Physics** **95**, 1439 (2004)
41. “Grain size influence on soft ferromagnetic properties in Fe-Co nanopowders” –P. Poddar, J. L. Wilson, H. Srikanth, B. G. Ravi, J. Wachsmuth and T. S. Sudarshan, **Materials Science & Engineering B** **106**, 95 (2004)
42. “Magnetic properties of magneto-rheological fluids with uniformly dispersed Fe nanoparticles” –P. Poddar, J. L. Wilson, **H. Srikanth**, Y. –H. Yoo, N. M. Wereley, S. Kotha, L. Barghouty and R. Radhakrishnan **Journal of Nanoscience and Nanotechnology** **4**, 192 (2004)
43. “In-plane and out-of-plane transverse susceptibility in close-packed arrays of monodisperse Fe nanoparticles” – P. Poddar, J. L. Wilson, **H. Srikanth**, D. F. Farrell and S. A. Majetich **Physical Review B** **68**, 214409 (2003)
44. “Surface modification and magnetism in nanostructured materials” –**H. Srikanth** and T. S. Sudarshan, **Surface Engineering in Materials Science II (TMS Proc. Book)**, pp 15 – 22 (2003)
45. “Magnetic studies of crystal-engineered molecular nanostructures” –**H. Srikanth**, R. Hajndl, B. Moulton and M. Zaworotko, **Journal of Applied Physics** **93**, 7089 (2003)
46. “Growth and Characterization of BSTO/Hexaferrite thin films” – R. Hajndl, J. Sanders, **H. Srikanth** and N. J. Dudney, **Journal of Applied Physics** **93**, 7999 (2003)
47. “Crystal engineering of a nanoscale Kagome lattice” –B. Moulton, J. Lu, R. Hajndl, **H. Srikanth** and M. J. Zaworotko, **Angewandte Chemie** **41**, 2821 (2002)
48. “Giant magnetoresistance, structural and magnetic properties of glass-coated Fe-Ni-Cu microwires” –J. Tang, K. –Y. Wang, L. Spinu, **H. Srikanth**, P. J. Schilling and N. Moelders, **Journal of Magnetism and Magnetic Materials** **249**, 73 (2002)
49. “The transverse susceptibility of uniaxial ferromagnets” –L. Spinu, A. Stancu, **H. Srikanth** and C. J. O’Connor, **Applied Physics Letters** **80**, 276 (2002)
50. “Relaxation and interaction effects on transverse susceptibility measurements of nanoparticle systems” –L. Spinu, A. Stancu, L. D. Tung, P. Postolache, J. Fang, **H. Srikanth** and C. J. O’Connor, **Journal of Magnetism and Magnetic Materials** **242**, 604 (2002)
51. “Magnetic studies of polymer-coated Fe nanoparticles synthesized by microwave plasma polymerization” –**H. Srikanth**, R. Hajndl, C. Chirinos, J. Sanders, A. Sampath and T. S. Sudarshan, **Applied Physics Letters** **79**, 3503 (2001)



52. "Micromagnetic study of reversible transverse susceptibility" –L. Spinu, A. Stancu, H. Srikanth and C. J. O'Connor, **Physica B** **306**, 221 (2001)
53. "Mapping of switching and anisotropy fields in magnetic nanoparticles" –**Srikanth Hariharan**, **Materials Physics and Mechanics** **4**, 1 (2001)
54. "RF probe studies of magnetic nanostructures" –L. Spinu, C. J. O'Connor and **H. Srikanth**, (*invited paper*) **IEEE Transactions on Magnetics** **37**, 2188 (2001)
55. "Dynamic transverse susceptibility in Au-Fe-Au nanoparticles" –**H. Srikanth**, E. E. Carpenter, L. Spinu, J. Wiggins, W. L. Zhou and C. J. O'Connor, **Materials Science and Engineering A** **304-306**, 901 (2001)
56. "Vortex Dynamics and Magnetic Anisotropy in RuSr<sub>2</sub>GdCu<sub>2</sub>O<sub>8</sub>" –**H. Srikanth**, L. Spinu, T. Kodenkandath, J. B. Wiley and J. Tallon, **Journal of Applied Physics** **89**, 7487 (2001)
57. "Switching behavior and strain dependence in epitaxial CrO<sub>2</sub> thin films" –L. Spinu, **H. Srikanth**, C. J. O'Connor, A. Gupta, X. W. Li and G. Xiao, **IEEE Transactions on Magnetics** **37**, 2596 (2001)
58. "Strain dependence and magnetic anisotropy in chromium dioxide thin films" –L. Spinu, **H. Srikanth**, X. W. Li, A. Gupta and G. Xiao, **Materials Research Symposium Proceedings Vol. 648**, P3.31.1 (2001)
59. "RF susceptibility of La<sub>{1-x}</sub>Sr<sub>{x}</sub>MnO<sub>{3}</sub> single crystals : Magnetic Signatures of Structural Changes - P.V. Parimi, **H. Srikanth**, M. Bailleul, S. Sridhar, R. Suryanarayanan, L. Pinsard and A. Revcolevschi, **Materials Research Symposium Proceedings Vol. 602**, 137 (2001)
60. "Superparamagnetism and transverse susceptibility in magnetic nanoparticles" –L. Spinu, **H. Srikanth**, J. Wiemann, S. Li, J. Tang and C. J. O'Connor, in press, **IEEE Transactions on Magnetics** **36**, 3032 (2000).
61. "Probing magnetic anisotropy effects in epitaxial CrO<sub>2</sub> thin films" –L. Spinu, **H. Srikanth**, A. Gupta, X. W. Li and G. Xiao, **Physical Review B** **62**, 8931 (2000).
62. "Dynamic studies of gamma-Fe<sub>2</sub>O<sub>3</sub> nanoparticle systems" –L. Spinu, D. Fiorani, **H. Srikanth**, F. Lucari, F. D'Orazio, E. Tronc, and M. Nogués, **Journal of Magnetism and Magnetic Materials** **226-230**, 1927 (2001).
63. "Synthesis and Characterization of new mixed-metal triple layered perovskites, Na<sub>2</sub>La<sub>2</sub>Ti<sub>3-x</sub>Ru<sub>x</sub>O<sub>10</sub>" –J. N. Lalena, A. U. Falster, W.B. Simmons Jr., E. E. Carpenter, J. Wiggins, **S. Hariharan** and J. B. Wiley, **Chemistry of Materials** **12**, 2418 (2000)
64. "Magneto-impedance of glass coated Fe-Ni-Cu microwires" -J. Wiggins, **H. Srikanth**, K. -Y. Wang, L. Spinu and J. Tang, **Journal of Applied Physics** **87**, 4810 (2000)
65. "Dynamic RF susceptibility in magnetic nanoparticles" -L. Spinu, **H. Srikanth**, E. E. Carpenter and C. J. O'Connor, **Journal of Applied Physics** **87**, 5490 (2000)
66. "Synthesis and magnetic properties of Gold-Iron-Gold Nanocomposites" - Everett E. Carpenter, Amar Kumbhar, Joan A. Wiemann, **Hariharan Srikanth**, Jason Wiggins, Weilie Zhou and Charles J. O'Connor, **Materials Science and Engineering A**, **286** 81 (2000)
67. "Radio-frequency impedance measurements using a tunnel-diode oscillator (TDO) technique" -**H. Srikanth**, J. Wiggins and H. Rees, **Review of Scientific Instruments** **70**, 3097 (1999).
68. "High frequency electrodynamics of La<sub>1-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> single crystals" -**H. Srikanth**, B. Revcolevschi, S. Sridhar, L. Pinsard and A. Revcolevschi, **Materials Research Symposium Proceedings, "Science and Technology of Magnetic Oxides"**, Vol. 494, pp 311-316 (1998)

69. “Systematics of two-component superconductivity in high quality YBCO single crystals from microwave measurements” - **H. Srikanth**, Z. Zhai, S. Sridhar and A. Erb , **Physical Review B** **57**, 7986 (1998).
70. “Disorder effects in electronic structure of substituted transition metal compounds” –D. D. Sarma, A. Chainani, S. R. Krishnakumar, E. Vescovo, C. Carbone, W. Eberhardt, O. Rader, Ch. Jung, Ch. Hellwig, W. Gudat, **H. Srikanth** and A. K. Raychaudhuri, **Physical Review Letters** **80**, 4004 (1998).
71. “Microwave properties of YBCO crystals grown in BaZrO<sub>3</sub> crucibles: influence of c-axis currents” –**H. Srikanth**, Z. Zhai, S. Sridhar, **Journal of Physics and Chemistry of Solids** **21**, 2105 (1998)
72. “Magneto-electrodynamics in DyNi<sub>2</sub>B<sub>2</sub>C: RF and Microwave experiments” -D. P. Choudhury, **H. Srikanth**, S. Sridhar and P. C. Canfield, **Physical Review B** **58**, 14490 (1998).
73. “Microwave response of YBCO crystals: Evidence for a multi-component order parameter” -**H. Srikanth**, Balam. A. Willemsen, T. Jacobs, S. Sridhar, A. Erb, E. Walker and R. Flukiger, **Physical Review B (Rapid Communications)** **55**, R14733 (1997).
74. “Evidence for multi-component superconducting order parameter in YBCO single crystals from microwave measurements” -S. Sridhar, **H. Srikanth**, Z. Zhai, Balam A. Willemsen, T. Jacobs, A. Erb, E. Walker and R. Flukiger, (Proceedings of Fifth International conference on Materials and Mechanisms of Superconductivity, **Physica C**, **282-287**, 256 (1997).
75. “Observation of coherent Josephson response in the non-linear ab-plane microwave impedance of YBCO single crystals” -Z. Zhai, **H. Srikanth**, S. Sridhar, A. Erb, E. Walker and R. Flukiger, (Proceedings of Fifth International conference on Materials and Mechanisms of Superconductivity, **Physica C** **282-287**, 1601 (1997).
76. “Microwave properties of Pr-doped YBCO: Influence of magnetic scattering” - **H. Srikanth**, S. Sridhar, D.A. Gajewski and M.B. Maple, **Physica C** **291**, 235 (1997).
77. “Depairing, vortex response and critical fields in YNiBC” -S. Oxx, D.P. Choudhury, B. Willemsen, **H. Srikanth**, S. Sridhar, B.K. Cho, P.C. Canfield, **Physica C**, **264** 103 (1996).
78. “Comment on “Vortex Glass and Lattice Melting Transitions in a YNiBC single crystal” -S. Sridhar, S. Oxx, Balam A. Willemsen, **H. Srikanth** and D.P. Choudhury, **Physical Review Letters** **77**, 2145 (1996).
79. “Magnetic susceptibility studies on Pr-doped YBCO single crystals in the insulating regime” -B. Jayaram, **H. Srikanth**, B.M. Wanklyn, C. Changkang, E. Holzinger-Schweiger and G. Leising, **Physical Review B** **52**, 89 (1995).
80. “Metal-insulator transition in perovskite oxides: Tunneling experiments” -A.K. Raychaudhuri, K.P. Rajeev, **H. Srikanth** and N. Gayathri, **Physical Review B** **51**, 7421 (1995).
81. “Transition from metallic to tunneling type conductance in N-N and N-S point contacts” -**H. Srikanth** and A.K. Raychaudhuri, **Physical Review B** **46**, 14713 (1992).
82. “Microshort to tunneling transition in Au-YBCO (single crystal) point contacts” -**H. Srikanth** and A.K. Raychaudhuri, **Physical Review B** **45**, 383 (1992).
83. “Point contact tunneling studies on Pr-doped YBCO single crystals” -**H. Srikanth**, A.K. Raychaudhuri, J.L. Peng and R.L. Greene , **Physica C** **218**, 245 (1993).
84. “Tunneling studies on single crystals of Ca-doped BSCCO superconductors” -**H. Srikanth** et al. **Physica C** **200**, 372 (1992).

85. "Normal state tunneling conductance of perovskite oxides" -**H. Srikanth** et al. **Physica C** **195**, 87 (1992).
86. "Modelling Tunneling data of N-S point contact junctions" -**H. Srikanth** and A.K. Raychaudhuri, **Physica C** **190**, 229 (1992).
87. "Effect of surface on the conductance characteristics of Au-BSCCO point contact junctions" -**H. Srikanth** and A.K. Raychaudhuri, **Journal of Applied Physics** **70**, 7478 (1991).
88. "Low temperature studies on normal perovskite oxides: role of correlation and disorder" - A.K. Raychaudhuri, K.P. Rajeev, **H. Srikanth** and R. Mahendiran, **Physica B** **197**, 124 (1994).
89. "Phonon spectroscopy of perovskite oxides using point contact techniques" -**H. Srikanth** and A. K. Raychaudhuri, *Phonon Scattering in Condensed Matter VII* (Ed. Meissner and Pohl, Springer, Heidelberg, p 158 (1993)
90. "Tunneling studies on sodium tungsten bronzes near the metal-insulator transition" -**H. Srikanth** and A.K. Raychaudhuri, **Journal of Physics : Condensed Matter** **5**, L551 (1993).
91. "Versatile system for point contact spectroscopy" -**H. Srikanth** and A.K. Raychaudhuri, **Cryogenics** **31**, 421 (1991).
92. "A comparison of barrier-type tunnel junction and point contact junction formed on the same high Tc superconductor" -**H. Srikanth** and A. K. Raychaudhuri, **Pramana** **36**, 621 (1991)
93. "Point contact tunneling on ceramic YBCO using STM tips" -**H. Srikanth**, M. Rajeswari and A. K. Raychaudhuri, **Pramana** **36**, 207 (1991)

### Recent Invited Talks at Conferences/Universities/National Labs

1. **Invited Speaker** –Magnetism and Spintronics, IUMRS-International Conference on Advanced Materials(ICAM), Bangalore, India, Oct. 2007
2. **Condensed Matter Seminar**, University of Central Florida, Orlando, FL, Jan. 29, 2007
3. **Invited Speaker** –Nanomaterials Symposium, TMS 2007, Orlando, FL, Feb. 2007
4. **Invited Speaker** in Symposium J "Materials for Advanced Sensors and Devices" at the International Conference on Materials for Advanced Technologies (ICMAT 2007), Singapore, July 2007
5. **Invited Speaker**, 13<sup>th</sup> Czech and Slovak Conference on Magnetism (CSMAG 2007), Kosice, Slovakia, July 2007
6. **Colloquium** at University of Illinois – Urbana Champaign, ECE Department, (Oct 19, 2006)
7. **Invited Talk** - "Transverse susceptibility as a probe of magnetic anisotropy in oxides" at the **CIMTEC 2006** (June 5 – 9, 2006, Acireale, Sicily).
8. **Invited speaker** on "Functional Magnetic Nanostructures Based on Polymer Nanocomposites and Self-Assembled Arrays" at the Materials Research Society (MRS) Fall 2005 meeting, Boston, MA (Dec. 2005)
9. **Colloquium** at University of Wisconsin – Milwaukee, Department of Physics, (Dec. 9, 2005)

10. **Colloquium** at Physics Department, Wayne State University, Detroit (Nov. 17, 2005)
11. **Colloquium** at INRS-EMT, University of Quebec, Montreal (Oct. 14, 2005).
12. **Colloquium** at Institute of Photonics, Lasers and Biophotonics, State University of New York at Buffalo, Buffalo, NY (Aug. 26, 2005)
13. “Magnetic anisotropy and spin dynamics in functional magnetic nanostructures” –**Srikanth Hariharan**, Colloquium, Department of Physics, Northeastern University, Boston, MA (Dec. 15, 2004)
14. “Materials processing and tunable magnetism in polymer nanocomposites” –**Srikanth Hariharan (invited)**, Thirteenth Processing and Fabrication of Advanced Materials (PFAM-13) conference, Singapore, Dec. 6 – 8 (2004).
15. “Transverse susceptibility and magnetization dynamics in magnetic nanostructures” – **Srikanth Hariharan (invited)**, Seeheim Conference on Magnetism (SCM 2004), Seeheim Germany, June 27-July 1, 2004
16. “Probing magnetic anisotropy and spin polarization in spintronic materials” –**Srikanth Hariharan (invited)**, IEEE NTC workshop in Quantum Device Technology, Clarkson Univ., Potsdam, NY (May 17-21, 2004).
17. “Cooperative magnetism and transverse susceptibility in nanocomposite materials” –Srikanth Hariharan, Invited seminar at Data Storage Center, Carnegie-Mellon University, Pittsburgh (Nov. 21, 2003).
18. Tutorial on Magnetic Nanostructures –**Srikanth Hariharan**, Presented at the AVS Florida Chapter meeting at UCF, Orlando (March 2003)
19. “Dynamic magnetization and RF susceptibility in nanocomposite materials” –**Srikanth Hariharan; Invited Talk** at the **American Physical Society (APS)** March meeting, Austin, TX (March 2003)
20. “Surface modification and magnetism in nanostructured materials” –**Srikanth Hariharan**; Talk presented in Symposium on “Surface Engineering in Materials” at The Materials and Minerals Society (TMS) annual conference, San Diego, CA (March 2003)
21. “Spin dynamics in novel magnetic systems” –**Srikanth Hariharan, Physics Department Colloquium** at Florida International University, Miami, FL (Nov. 2002)
22. “Spin dynamics in novel magnetic systems” –**Srikanth Hariharan; Physics Department Seminar** at University of Florida, Gainesville, FL (September 2002)
23. “Surface modification and magnetism in nanostructured materials” –**Srikanth Hariharan; Invited talk at the Florida Chapter American Vacuum Society (AVS) meeting**, Orlando, FL (March 2002)
24. “Spin dynamics in novel magnetic systems” –**Srikanth Hariharan; Colloquium at University of Central Florida**, Physics Department (September 2001)
25. “Mapping of switching and anisotropy fields in magnetic nanoparticles” –**Srikanth Hariharan; Invited talk in Symposium on Advanced Data Storage Materials at the International Conference on Materials for Advanced Technologies (ICMAT)**, Singapore

(July 2001)

26. “Spin dynamics in magnetic nanoparticles and thin films” –**Srikanth Hariharan**; **Colloquium at the Oak Ridge National Laboratory**, Solid State Division (June 2001)
27. “Dynamic RF response in novel magnetic systems” –**Srikanth Hariharan**; **Invited seminar at MARTECH**, Florida State University, Tallahassee, FL (February 2001)
28. “Radio-frequency probe studies of magnetic nanostructures” –**H. Srikanth**, L. Spinu and C. J. O’Connor; **Invited talk at the joint 8<sup>th</sup> IEEE Magnetics/MMM conference**, San Antonio, TX (January 2001)

### Other Invited talks/colloquia/seminars (prior to joining USF)

1. Colloquium, Physics Dept., Univ. South Florida, Tampa, FL (March 2000)
2. Colloquium, Physics Dept., Clemson Univ. SC (March 2000)
3. Colloquium, Physics Dept., Clarkson Univ., NY (Feb. 2000)
4. Seminar at MRSEC, Physics Dept., Univ. of Maryland, MD (Oct. 1999)
5. Invited talk at Dept. of Physics, Southern Univ.-Baton Rouge, LA (Mar. 1999)
6. Presentation at DARPA/AMRI/Industry symposium, New Orleans, LA (Feb. 1999)
7. Seminar at Tulane University, New Orleans, LA (Jan. 1999)
8. Seminar at Louisiana State University (Physics Dept.), Baton Rouge, LA (Nov. 1998)
9. Seminar at University of New Orleans (Physics Dept.), New Orleans, LA (Sept. 1998)
10. Colloquium at Advanced Materials Research Institute, New Orleans, LA (April 1998)
11. Colloquium at Texas A&M University, College Station, TX (March, 1998)
12. Condensed matter seminar at Brown University, Providence, RI (January 1998).
13. Solid State seminar at Brookhaven National Lab (Jan 1998).
14. Condensed Matter seminar at Northeastern University, Boston, MA (November 1997).
15. Solid state seminar at Brookhaven National Lab (January 1997).

### Selected presentations at professional conferences

1. “Structure, magnetism and microwave properties of PLD-grown Barium Ferrite/Barium Strontium Titanate bilayer thin films” –R. Heindl, H. Srikanth, S. Witanachchi, P. Mukherjee, T. Weller, A. S. Tatarenko and G. Srinivasan, 10<sup>th</sup> annual joint INTERMAG/MMM conference, Baltimore, Jan 07
2. “Static and dynamic properties of ‘dumbbell’ and ‘flower’ shaped Au-Fe<sub>3</sub>O<sub>4</sub> nanoparticles” –N. A. Frey, S. Srinath, H. Srikanth, T. Chao and S. Sun, 10<sup>th</sup> annual joint INTERMAG/MMM conference, Baltimore, Jan 07
3. “Magnetic anisotropy and exchange bias in epitaxial CrO<sub>2</sub>/Cr<sub>2</sub>O<sub>3</sub> bilayer thin films” –S. Srinath, N. A. Frey, H. Srikanth, G. X. Miao and A. Gupta, 10<sup>th</sup> annual joint INTERMAG/MMM conference, Baltimore, Jan 07
4. “Exchange coupling, surface and configurational anisotropy in magnetic nanoparticles” –H. Srikanth, MRS Fall 2006, Boston, Nov. 2006
5. “Sensor applications and spin transport measurements in carbon nanotube composites” –J. Sanders, J. Gass, H. Srikanth, F. K. Perkins and E. S. Snow, APS March Meeting, Baltimore, March 2006
6. “Magnetocaloric effect in nanoparticle systems and clathrates” –D. J. Rebar, J. Gass, S. Srinath, H. Srikanth and G. S. Nolas, APS March Meeting, Baltimore, March 2006

7. "Synthesis and characterization of functional magnetic nanocomposites" –J. Gass, J. Sanders, S. Srinath and H. Srikanth, APS March Meeting, Baltimore, March 2006
8. "Magnetic anisotropy in CrO<sub>2</sub> and CrO<sub>2</sub>/Cr<sub>2</sub>O<sub>3</sub> bilayer thin films" –N. A. Frey, S. Srinath, H. Srikanth, G. Miao and A. Gupta, APS March Meeting, Baltimore, March 2006
9. "Microwave impedance and tunability of BSTO/BaM ferrite films" –R. Heindl, **H. Srikanth**, S. Balachandran, T. Weller, A. Kumar, P. Gadkari and K. R. Coffey, 50<sup>th</sup> Magnetism and Magnetic Materials (MMM) conference, San Jose, CA, Oct. 30-Nov. 3 (2005).
10. "Giant magnetocaloric effect (MCE) in clathrates" –**H. Srikanth**, S. Srinath, D. Rebar, J. Gass, G. Woods, M. Beekman, G. Nolas, 50<sup>th</sup> Magnetism and Magnetic Materials (MMM) conference, San Jose, CA, Oct. 30-Nov. 3 (2005).
11. "Static and dynamic magnetic response in Mn-doped InP diluted magnetic semiconductor (DMS) nanoparticles" –**H. Srikanth**, P. Poddar, S. Srinath, Y. Sahoo, P. N. Prasad, 50<sup>th</sup> Magnetism and Magnetic Materials (MMM) conference, San Jose, CA, Oct. 30-Nov. 3 (2005).
12. "Observation of a new magnetic anomaly below the ferromagnetic Curie temperature in Yb<sub>14</sub>MnSb<sub>11</sub>" –S. Srinath, P. Poddar, **H. Srikanth**, B. C. Sales and D. B. Mandrus, 50<sup>th</sup> Magnetism and Magnetic Materials (MMM) conference, San Jose, CA, Oct. 30-Nov. 3 (2005).
13. "Magnetization and electrical resistivity in insulating phases of SrFeO<sub>3-d</sub>" –S. Srinath, M. Mahesh, M. L. Post and **H. Srikanth**, 50<sup>th</sup> Magnetism and Magnetic Materials (MMM) conference, San Jose, CA, Oct. 30-Nov. 3 (2005).
14. "Functional magnetic nanostructures" –Srikanth Hariharan, Nanomaterials and Nanotechnologies (NN 2005), Hersonissos, Crete (Greece), June 2005
15. "Magnetocaloric effect in ferrite nanoparticles" –D. Rebar, J. Gass, P. Poddar and **H. Srikanth**, American Physical Society March meeting, March 2005, Los Angeles, CA.
16. "Growth and characterization of tunable BSTO/BaM multilayers as substrates for magnetic nanoparticles" – N. A. Frey, S. Srinath, R. Heindl, **H. Srikanth**, K. R. Coffey, N. J. Dudney, American Physical Society March meeting, March 2005, Los Angeles, CA.
17. "Dispersion of magnetic nanoparticles in polymer films" –J. Gass, J. Almand, P. Poddar and **H. Srikanth**, American Physical Society March meeting, March 2005, Los Angeles, CA.
18. "Transverse susceptibility as a probe of spin and charge dynamics in LSMO single crystals" –**H. Srikanth**, P. Poddar, G. T. Woods and Y. Mukovskii, American Physical Society March meeting, March 2005, Los Angeles, CA.
19. "Microstructure and magnetism in polymer nanocomposites with Fe and Fe<sub>3</sub>O<sub>4</sub> nanoparticle dispersions" –J. Gass, J. Almand, P. Poddar and **H. Srikanth**, Magnetism and Magnetic Materials (MMM) conference, Jacksonville, FL, Nov. 7 – 11 (2004).
20. "Growth of electrically and magnetically tunable BSTO/BaF multilayers" –S. Srinath, N. A. Frey, R. Hajndl, **H. Srikanth**, K. R. Coffey, N. J. Dudney, Magnetism and Magnetic Materials (MMM) conference, Jacksonville, FL, Nov. 7 – 11 (2004).
21. "Observation of charge ordering and ferromagnetic transition in single crystal LSMO using RF transverse susceptibility" –G. T. Woods, P. Poddar, **H. Srikanth** and Y. M. Mukovskii, Magnetism and Magnetic Materials (MMM) conference, Jacksonville, FL, Nov. 7 – 11 (2004).

22. “Spin polarization measurements in polycrystalline ruthenates using point contact Andreev reflection” –J. T. Sanders, G. T. Woods, P. Poddar, **H. Srikanth** and B. Dabrowski, Magnetism and Magnetic Materials (MMM) conference, Jacksonville, FL, Nov. 7 – 11 (2004).
23. “Spin polarization measurements in LSMO using point contact Andreev reflection (PCAR)” –J. T. Sanders, G. T. Woods, **H. Srikanth** and B. Dabrowski, American Physical Society March meeting, Montreal, Canada (March 22-26, 2004)
24. “Growth and characterization of BSTO/Hexaferrite multilayered films as tunable substrates for nanoparticles” –N. A. Frey, R. Hajndl, P. Poddar, **H. Srikanth** and N. J. Dudney, American Physical Society March meeting, Montreal, Canada (March 22-26, 2004)
25. “Polymer composites with embedded magnetic nanoparticles” –J. Gass, J. L. Wilson, P. Poddar, **H. Srikanth**, K. Mohomed and J. P. Harmon, American Physical Society March meeting, Montreal, Canada (March 22-26, 2004)
26. “Probing magnetic anisotropy and interactions in close-packed arrays of monodisperse magnetic nanoparticles” –**H. Srikanth**, P. Poddar, D. F. Farrell and S. A. Majetich, American Physical Society March meeting, Montreal, Canada (March 22-26, 2004)
27. “Magnetic and magnetocaloric properties of arrays of nanoparticles” - Pankaj Poddar and **Srikanth Hariharan**, Oral presentation at the Particles 2004, Orlando, FL, 6-9 March 2004
28. Shielding materials synthesized with core-shell structure of manganese zinc ferrites and polyaniline”- Ozlem Yavuz, Manoj K. Ram and Matt Aldissi, Pankaj Poddar, **Srikanth Hariharan**, Oral presentation at Particles 2004, Orlando, FL, 6-9 March 2004
29. “Magnetic properties of conducting polymer doped with manganese zinc ferrite nanoparticles” - P. Poddar, J. L. Wilson, **H. Srikanth**, S. A. Morrison. and E. E. Carpenter, Poster presentation at IEEE NDSI 2004 Nanoscale Devices and System Integration, Feb. 15-19, 2004, Miami, FL
30. “Synthesis and magnetic properties of Magnetite nanoparticles coated with TiO<sub>2</sub>” - O. Yavuz, M. K. Ram, M. Aldissi, P. Poddar, and **S. Hariharan**, Poster presentation at IEEE NDSI 2004 Nanoscale Devices and System Integration, Feb. 15-19, 2004, Miami, FL
31. “Synthesis and characterization of polymer composite materials with uniformly dispersed magnetic nanoparticles” – **H. Srikanth**, J. L. Wilson, P. Poddar, K. Mohomed and J. P. Harmon, Poster presentation at the Fall 2003 Materials Research Society meeting, Boston, December 2003.
32. “Effective magnetic anisotropy in nanoparticle systems probed using transverse susceptibility experiments” – P. Poddar, **H. Srikanth**, D. F. Farrell, S. A. Majetich, S. Morrison and E. E. Carpenter, Oral presentation at the Fall 2003 Materials Research Society meeting, Boston, December 2003.
33. “Magnetism and RF dynamics in nanocomposite materials” –**Srikanth Hariharan**, Oral presentation at the International Conference on Materials for Advanced Technologies (ICMAT 2003), Singapore, December 2003.
34. “Microstructure and magnetism in BSTO/hexaferrite composite films” – **H. Srikanth**, N. A. Frey, R. Hajndl, P. Poddar and N. J. Dudney, Oral presentation at the International Conference on Materials for Advanced Technologies (ICMAT 2003), Singapore, December 2003.
35. “Magnetization dynamics in self-assembled ordered nanoparticle arrays” –**Srikanth Hariharan**, International Conference on Nanoscience and Technology (ICONSAT), Kolkata, December 2003.
36. “Magnetic properties of MR-fluids with uniformly dispersed Fe nanoparticles” –P. Poddar, J. L. Wilson, **H.**

- Srikanth**, N. M. Wereley and R. Radhakrishnan, Oral presentation at the APS 2003 March meeting, Austin, TX.
37. “Static and dynamic magnetic studies of magnetic nanoparticles embedded in a polymer matrix” –J. L. Wilson, P. Poddar, **H. Srikanth**, L. Clayton, K. Mohamed and J. Harmon; Oral presentation at the APS 2003 March meeting, Austin, TX.
  38. “Magnetization and frequency-dependent permeability in BSTO/Hexaferrite thin films and nanostructured materials” –R. Hajndl, P. Poddar, **H. Srikanth** and N. J. Dudney; Oral presentation at the APS 2003 March meeting, Austin, TX
  39. “Point contact Andreev reflection (PCAR) investigation of half-metal thin films with variable temperature and magnetic field control” –J. Sanders, P. Poddar, **H. Srikanth**, G. Woods and M. S. Osofsky; Oral presentation at the APS 2003 March meeting, Austin, TX
  40. “RF magnetodynamics in ferrite nanoparticles and Fe nano-arrays” –**H. Srikanth**, J. Wilson, R. Hajndl, J. Sanders, D. Farrell, S. Majetich, S. Morrison, E. Carpenter and V. Harris, Oral presentation at the 47<sup>th</sup> Annual Magnetism and Magnetic Materials (MMM) conference in Tampa, Nov. 2002.
  41. “Growth and characterization of BSTO/Hexaferrite composite thin films” –R. Hajndl, J. Sanders, **H. Srikanth** and N. J. Dudney; Oral presentation at the 47<sup>th</sup> Annual Magnetism and Magnetic Materials (MMM) conference in Tampa, Nov. 2002.
  42. “Static and dynamic magnetic studies of crystal-engineered molecular nanostructures” –**H. Srikanth**, R. Hajndl, B. Moulton and M. Zaworotko; Oral presentation at the 47<sup>th</sup> Annual Magnetism and Magnetic Materials (MMM) conference in Tampa, Nov. 2002.
  43. “Dynamic transverse susceptibility and cooperative magnetism in nanostructured materials” –**Srikanth Hariharan**; Paper presented at the Gordon Conference on Magnetic Nanostructures, Barga, Italy (May 2002)
  44. “RF susceptibility in magnetic nanoparticles and nanocomposites” –**H. Srikanth**, R. Hajndl, J. Sanders, E. Carpenter and T. S. Sudarshan; Oral presentation at the American Physical Society March meeting, Indianapolis (March 2002)
  45. “Growth and characterization of BSTO/hexaferrite composite thin films” –R. Hajndl, J. Sanders, **H. Srikanth** and N. J. Dudney; Oral presentation at the American Physical Society March meeting, Indianapolis (March 2002)
  46. “Static and Dynamic magnetic studies of CrO<sub>2</sub> and Fe<sub>3</sub>O<sub>4</sub> thin films” –J. Sanders, R. Hajndl, **H. Srikanth**, A. Houssam, P. Mukherjee and S. Witanachchi; Oral presentation at the American Physical Society March meeting, Indianapolis (March 2002)
  47. “RF dynamics in nanoparticle systems with tuned strength of interactions” –L. Spinu, A. Stancu, L. Tung, J. Fang, **H. Srikanth** and C. J. O’Connor; Presentation at the IEEE International Magnetism conference, Amsterdam, Netherlands (April 2002)
  48. “Static and dynamic magnetic studies in nanocomposites and supramolecular systems” - **Srikanth Hariharan**; Presentation at the DARPA/AMRI review, New Orleans (February 2002)
  49. Two abstracts accepted in 46<sup>th</sup> Annual Magnetism and Magnetic Materials (MMM) conference in Seattle (Nov. 2001). Did not attend conference due to illness.
  50. “Spin dynamics in novel magnetic materials” –**Srikanth Hariharan** & Leonard Spinu; Presentation at the DARPA/AMRI review, New Orleans (February 2001)



51. “Vortex dynamics and magnetic anisotropy in RuSr<sub>2</sub>GdCu<sub>2</sub>O<sub>8</sub>” –L. Spinu, **H. Srikanth** and J. Tallon; Oral presentation at the 8<sup>th</sup> joint INTERMAG/MMM conference, San Antonio, TX (January 2001)
52. “Switching behavior and strain dependence in epitaxial CrO<sub>2</sub> thin films” –L. Spinu, **H. Srikanth**, A. Gupta, X. W. Li and G. Xiao; Oral presentation at the 8<sup>th</sup> joint INTERMAG/MMM conference, San Antonio, TX (January 2001)
53. “Transverse susceptibility and magnetic anisotropy in nanoparticle systems” –L. Spinu, **H. Srikanth**, J. Fang, W. Zhou and C. J. O’Connor; Materials Research Society Fall Meeting, Boston, MA (November 2000)
54. “Strain dependence and magnetic anisotropy in CrO<sub>2</sub> thin films” –L. Spinu, **H. Srikanth**, A. Gupta, X. W. Li, G. Xiao; Materials Research Society Fall Meeting, Boston, MA (November 2000)

[Over 25 conference presentations prior to joining USF from University of New Orleans and Northeastern University, not listed]

## Membership in Professional Societies

American Physical Society (APS)  
Materials Research Society (MRS)  
Institute for Electrical and Electronic Engineers (IEEE)

## Conference Service

**Publications Editor & Program Committee member**, 52<sup>nd</sup> MMM Conference to be held in Tampa, FL (Nov. 2007)

**Co-organizer of GMAG/DMP sponsored Focus Topic** “Magnetic Nanostructures: Materials & Phenomena” at the 2007 APS March Meeting, Denver, CO.

**Publications Editor & Program Committee member**, 10<sup>th</sup> joint INTERMAG/MMM Conference, Baltimore, MD (Jan. 8 – 11, 2007)

**Best Poster Award Selection Committee**, 10<sup>th</sup> joint INTERMAG/MMM Conference, Baltimore, MD (Jan. 8 – 11, 2007)

**Session Chairman**, CIMTEC 2006 Conference, Acireale, Sicily (June 2006). Session title: “Magnetic Ceramics”.

**Session Chairman**, APS March Meeting 2006, March 13 – 17, 2006, Baltimore, MD [G22 Focus Session: “Magnetic Nanoparticles I”]

**Publications Editor & Program Committee Member**, 50<sup>th</sup> annual Magnetism and Magnetic Materials (MMM) conference (Nov. 2005, San Jose, CA)

**Session Chairman**, “CH: Itinerant Magnetism”, 50<sup>th</sup> annual Magnetism and Magnetic Materials (MMM) conference (Nov. 2005, San Jose, CA)

**Session Chairman**, 49<sup>th</sup> annual Magnetism and Magnetic Materials (MMM) conference, November 7 - 11, 2004 in Jacksonville, FL.

**Conference Report**, Invited by conference organizers and publisher to write the conference report for the second Seeheim Conference on Magnetism (SCM 2004), Seeheim, Germany (July 2004)

**Advisory Committee Member**, Low Temperature Physics (LT-24) conference to be held in Orlando, FL (2005)

**Local Chairman**, 47<sup>th</sup> annual Magnetism and Magnetic Materials (MMM) conference, November 11 – 15, 2002 in Tampa.

**Session Chairman**, 47<sup>th</sup> annual Magnetism and Magnetic Materials (MMM) conference, November 11 – 15, 2002 in Tampa. [Responsible for chairing session FG on “Ferrites, Garnets and other Microwave Materials”]

**Session Chairman**, 8<sup>th</sup> joint IEEE Magnetics/MMM conference, Jan. 2001, San Antonio, Tx [Responsible for chairing session EP on “Anisotropic magnetoresistance, magnetoimpedance and Hall effect”]

**Organizing committee member**, Conference on Spectroscopies of Novel Superconductors (SNS), Cape Cod, MA (1997)

## Proposal and Panel Reviewer activities for federal funding agencies

1. **Proposal Reviewer, NSF CAREER program**, Division of Materials Research (DMR)
2. **Proposal Reviewer, Materials World Network Program**, NSF DMR
3. **Panelist, NSF IMR/MRI program**, Division of Materials Research (DMR)
4. **Panelist for NSF Chemical Transport Systems Division**
5. **Panel Reviewer for NSF Division of Manufacturing and Industrial Innovation (DMII) SBIR Phase I and Phase II programs**
6. **Panelist for NSF Electronics, Photonics and Device technology proposals. NSF – ECS division**
7. **Panel Reviewer for NSF Nanoscale Science and Engineering programs**
8. **Proposal reviewer for NSF Division of Materials Research (DMR) Ceramics and Condensed Matter Physics Programs (2000 – present)**
9. **Proposal reviewer for Army Research Office (ARO) Materials Science program**
10. **Proposal reviewer for Department of Energy (DoE) Condensed Matter Physics**
11. **Proposal reviewer for ACS Petroleum Research Fund**
12. **Proposal reviewer for US Civilian Research Development Foundation (CRDF)**

## Reviewer activities for professional journals

- Physical Review Letters
- Physical Review B
- Journal of Applied Physics
- Applied Physics Letters
- Applied Physics A
- IEEE Transactions of Magnetics
- Journal of Magnetism and Magnetic Materials
- Journal of Physics: Condensed Matter
- Advanced Functional Materials
- Journal of Materials Research
- Materials Letters
- Journal of Materials Science
- Journal of Physics and Chemistry of Solids

- Solid State Electronics
- Chemistry of Materials
- Polymer International
- Journal of American Chemical Society
- Langmuir

## University Governance and Service activities [@ Univ. of South Florida]

- Steering Committee: USF Functional Multi-scale Materials by Design (FMMD) initiative
- Physics Faculty Search Committee (2006 – 2007)
- Physics Faculty Search Committee (2005 – 2006)
- College of Arts & Sciences Tenure & Promotion Committee (2005 – 2007)
- Physics Department Graduate Recruitment Committee (2005 - present)
- CAS Dean's Search Committee (2004)
- Review panelist for USF internal grants (Fall 2003)
- Physics Department Faculty Search Committee (2003-2004)
- Physics Department Faculty Advisory Committee (FAC) (2002 – 2005)
- Physics Faculty Search Committee (2002 – 2003)
- Colloquium Chairman (2001 – 2002)
- Physics Faculty Search Committee (2001 – 2002)
- Physics Faculty Search committee (2000 – 2001)
- Physics Department Graduate Committee (2000 – present)
- USF College of Arts and Sciences Nobel Laureate Lecture series organizing committee (2002 – 2004)

## List of recent research collaborators

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