

Hari Srikanth, Ph.D.

Distinguished University Professor

2019-2022 Fulbright US Scholar

2019 IEEE Magnetics Society Distinguished Lecturer

Director – Functional Materials Laboratory

Fellow –American Physical Society

Fellow -Institute of Physics

Associate Editor -Physical Review B

Editor -Journal of Alloys and Compounds

Editorial Board Member -Journal of Magnetism and Magnetic Materials

Assoc Editor -Journal of Applied Physics (2014-2020)

Member, Nanomagnetism Technical Committee, IEEE

Nanotechnology Council

University of South Florida

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Google Scholar h-index 56

<https://scholar.google.com/citations?user=40EKS94AAAAJ&hl=en>

Employment/Professional Experience:

2020-present	Distinguished University Professor, University of South Florida
2009-2020	Professor, Physics Department, University of South Florida
2004-2009	Associate Professor, Physics Dept., USF, Tampa, FL
2000-04	Assistant Professor, Physics Dept., USF, 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

Short term Visiting Professorships held at Basque Center for Materials (Bilbao, Spain), Slovak Academy of Sciences (Kosice, Slovakia), Indian Institute of Science (Bangalore, India), Federal University of Rio de Janeiro, Brazil (funded by American Physical Society), Immanuel Kant Baltic Federal University, Kaliningrad, Russia, **Fulbright visiting professorship at Nanyang Technological University, Singapore (2019-2022)**, **Visiting Professor at Indian Institute of Technology Bombay (2021-2023)**

Education:

- 1994 Ph. D (Physics), Indian Institute of Science, Bangalore, India
- 1987 M. Sc (Physics), Madura College, Madurai, India
- 1985 B. Sc (Physics), Madura College, Madurai, India

Membership in Professional Societies:

- American Physical Society (APS) (**Fellow**)
- Institute of Physics (IOP) (**Fellow**)
- Institute for Electrical and Electronic Engineers (IEEE) –Magnetics Society (**Senior Member**)
- Institute of Nanotechnology (IoN) -**Fellow**
- Materials Research Society (MRS)
- The Metals, Minerals and Materials Society (TMS)

Highlights of professional achievements

- **Distinguished University Professor at University of South Florida (2020-present)**
- Lead PI grants ~ **\$5.8 Million** received during past 18 years from **National Science Foundation, Department of Energy, Army Research Office, DARPA, Marie Curie Foundation through Bizkaia Talent** etc.
- Total grant funding in multi-PI grants ~ **\$10 Million**
- **Over 275 journal publications** [~240 papers published from USF since joining the university in Fall 2000]
- **2 US Patents (7, 268, 563 and 9,384,877)**
- **Awarded 2019-2022 Fulbright US Scholar to conduct research as a Visiting Professor at Nanyang Technological University, Singapore**
- **2019 IEEE Magnetics Society Distinguished Lecturer (delivered 81 lectures in 15 countries around the world from January-December 2019)**
- **Outstanding Faculty Awards (2020, 2021) University of South Florida**
- **Member, Nanomagnetism Technical Committee, IEEE Nanotechnology Council**
- **Fellow, Institute of Physics (FInstP) (inducted 2021)**
- **Marie Curie Fellow (2015)**
- **Fellow, American Physical Society (FAPS) (inducted 2014) Citation:** “For important contributions to the experimental studies of magnetization dynamics and novel physics in complex nano-composites”
- **Fellow, Institute of Nanotechnology (FIoN) (inducted 2014)**
- **Associate Editor, Physical Review B (June 2021 – present)**
- **Editor, Journal of Alloys and Compounds (IF: 4.65) (March 2020-present)**
- **Associate Editor, Journal of Applied Physics (March 2014 – 2020)**
- **Member, Editorial Advisory Board, Journal of Magnetism and Magnetic Materials**
- **Member, Nanomagnetism Technical Committee, IEEE Nanotechnology Council**
- **Special Events Chair, 2022 Joint MMM/INTERMAG conference**
- **Publication Chair, International Conference on Magnetism (ICM 2018)**
- **Publication Chair and Steering Committee Member, MMM and joint MMM/Intermag conferences in 2011, 2012 and 2013.**
- Peer reviewer for NSF, DoE, DoD agencies and over 15 journals.

- USF College of Arts and Sciences, Faculty Council Member and Tenure & Promotion committee (2010 – 16)
- **Over 300 invited talks/colloquia/seminars**
- **Over 260 contributed presentations at international conference**

Teaching/Education related activities

- Taught a number of undergraduate and graduate courses in physics and materials science over the past 18 years at USF. Consistently received high student evaluations.
- **Graduated 18 PhD students and 5 MS students** in the past 18 years
- **Mentored 12 postdoctoral researchers and over 25 undergraduate students**
- Developed a 3 lecture short course on “Nanomagnetism –Principles, Fabrication, Properties and Applications” and taught at several international institutions. Funded by APS and recently taught this course at the Federal University of Rio de Janeiro (UFRJ) in Brazil in May 2018.

Journal Publications: (290+)

(9812 citations as of March 2022. h-index: 56)

Source: Google Scholar)

Selected recent publications over the past 3 years

1. “Proximity enhanced magnetism at NiFe₂O₄/Graphene interface” -*N.Schulz, A. Chanda, G. Datt, M.Venkata Kamalakar, T. Sarkar, M.H. Phan and H. Srikanth, AIP Advances 12, 035132 (2022)*
<https://doi.org/10.1063/9.0000271>
2. “Emergent magnetic properties of biphasic iron oxide nanorods” -*S.B. Attanayake, A. Chanda, R. Das, M.H. Phan and H. Srikanth, AIP Advances 12, 035136 (2022)*
<https://doi.org/10.1063/9.0000256>
3. “Spin Seebeck Effect in Iron Oxide Thin Films: Effects of phase transition, phase coexistence and surface magnetism” -*A. Chanda, D. DeTellem, Y. Pham, J. Shoup, A.T. Duong, R. Das, S. Cho, D.V. Voronine, M. Tuan Trinh, D. Arena, S. Witanachchi, H. Srikanth and M. H. Phan, ACS Applied Materials and Interfaces* <https://doi.org/10.1021/acsami.1c23284> (March 2022)
4. “Thermal generation of spin current and magnon propagation length in compensated ferrimagnetic Gd₃Fe₅O₁₂ thin films” -*A. Chanda, N. Schulz, C. Holzmann, J. Seyd, M. Albrecht, M.H. Phan and H. Srikanth, IEEE Transactions on Magnetics* <https://ieeexplore.ieee.org/document/9686649#:~:text=DOI%3A%2010.1109/TMAG.2022.3144835> DOI: [10.1109/TMAG.2022.3144835](https://doi.org/10.1109/TMAG.2022.3144835) (January 2022)
5. “Surface magnetic anisotropy-mediated spin Hall magnetoresistance and spin Seebeck effects in a YIG/Pt heterostructure” -*V. Kalappattil, R. Das, M.H. Phan and H. Srikanth, Journal of Magnetism and Magnetic Materials 551, 169173 (2022);*
<https://doi.org/10.1016/j.jmmm.2022.169173>
6. “Scaling of the thermally induced sign inversion of longitudinal spin Seebeck effect in a compensated ferrimagnet: role of magnetic anisotropy” -*A. Chanda, C. Hozmann, N. Schulz, J. Seyd, M. Albrecht, M.H. Phan and H. Srikanth, Advanced Functional Materials* <https://doi.org/10.1002/adfm.202109170> (Nov 2021)
7. “Radiofrequency transverse susceptibility as a probe to study magnetic systems” -*S. Chandra and H. Srikanth, Book Chapter (pp. 119-137) in “Magnetic Measurement Techniques for Materials*

- Characterization*” -Ed. V. Franco, B. Dodrill (Springer 2021) <https://doi.org/10.1007/978-3-030-70443-8>
8. “Tablelike magnetocaloric effect and enhanced refrigerant capacity in $\text{EuO}_{1-\delta}$ thin films” -*P. Lampen-Kelley, R. Madhogaria, N.S. Bingham, M.H. Phan, P.M.S. Monteiro, N.J. Steinke, A. Ionescu, C.H.W. Barnes and H. Srikanth, Physical Review Materials 5*, 094404 (2021)
 9. “Tunable competing magnetic anisotropies and spin reconfigurations in ferrimagnetic $\text{Fe}_{100-x}\text{Gd}_x$ alloy films” -*A. Chanda, J. E. Shoup, N. Schulz, D. A. Arena and H. Srikanth, Physical Review B 104*, 094404 (2021)
 10. “Competing magnetic interactions and emergent phase diagrams in double perovskite $\text{Y}_2\text{Ni}_x\text{Co}_{1-x}\text{MnO}_6$ ” -*R.P. Madhogaria, N.S. Bingham, R. Das, M.H. Phan and H. Srikanth, Journal of Alloys and Compounds 888*, 161624 (2021)
 11. “Iron oxide nanotubes and nanorings for magnetic hyperthermia: the problem of intraparticle interactions” -*R. Das, J. Alonso Masa, V. Kalappattil, Z. Nemati, I. Rodrigo, E. Garaio, J.A. Garcia, M.H. Phan and H. Srikanth, Nanomaterials 11*, 1380 (2021)
 12. “Giant low-field magnetocaloric effect and refrigerant capacity in reduced dimensional EuTiO_3 multiferroics” -*R. Das, R. Prabhu, N. Venkataramani, Shiva Prasad, Ling Li, M.H. Phan, V. Keppens, D. Mandrus, H. Srikanth, Journal of Alloys and Compounds 850*, 156819 (2021)
 13. “Hybrid magnetic nanoparticles as efficient nanoheaters in biomedical applications” (mini-review) -*G.C. Lavorato, R. Das, J. Alonso Masa, M.H. Phan and H. Srikanth, Nanoscale Advances 3*, 867 (2021)
 14. “Strain modulated helimagnetism and emergent magnetic phase diagrams in highly crystalline MnP nanorod films” -*R.P. Madhogaria, C.M. Hung, B. Muchharla, A.T. Duong, R. Das, P.T. Huy, S. Cho, S. Witanachchi, H. Srikanth and M.H. Phan, Physical Review B 103*, 184423 (2021)
 15. “Shell-mediated control of surface chemistry of highly stoichiometric magnetite nanoparticles” -*G.C. Lavorato, A.A. Rubert, Y.T. Xing, R. Das, J. Robles, F.J. Litterst, E. Baggio-Saitovitch, M.H. Phan, H. Srikanth, C. Vericat, M. Fonticelli, Nanoscale 12*, 13626 (2020)
 16. “Giant spin Seebeck effect through an interface organic semiconductor” -*V. Kalappattil, R. Geng, R. Das, M. Pham, H. Luong, T. Nguyen, A. Popescu, L.M. Woods, M. Klauei, H. Srikanth and M.H. Phan, Materials Horizons 7*, 1413 (2020)
 17. “Investigating spin coupling across a three-dimensional interface in core/shell magnetic nanoparticles” -*C. Kons, M.H. Phan, H. Srikanth, D. Arena, Z. Nemati, J. Borchers, K. Krycka, Physical Review Materials 4*, 034408 (2020)
 18. “Robust cycloid crossover driven by anisotropy in skyrmion host GaV_4S_8 ” -*E.M. Clements, R. Das, G. Pokharel, M.H. Phan, A.D. Christianson, D. Mandrus, J.D. Prestigiacomo, M.S. Osofsky and H. Srikanth, Physical Review B 101*, 094425 (2020)
 19. “Origin of shell driven optimization of heating power in core-shell bimagnetic nanoparticles” -*G.C. Lavorato, R. Das, Y.T. Xing, J. Robles, F.J. Litterst, E.B. Saitovitch, M.H. Phan and H. Srikanth, ACS Applied Nano Materials 3*, 1755 (2020)
 20. “Unlocking the potential of magnetotactic bacteria as hyperthermia agents” -*D. Gandia, L. Gandarias, I. Rodrigo, J. Robles-Garcia, R. Das, E. Garaio, J. A. Garcia, M.H. Phan, H. Srikanth, I. Orue, J. Alonso, A. Muela, M.L. Fernandez-Gubieda, Small 15*, 1902626 (2019)

Professional/Conference Service (past 3 years)

- **Focus Topic Co-organizer**, 2022 ICM Conference, Bologna, Italy
- **Symposium co-organizer**, 2023 ICMAT, Singapore
- **Member, Nanomagnetism Technical Committee**, IEEE Nanotechnology Council (June 2021 – present)
- **Special Events Chair**, 2022 Joint MMM-INTERMAG conference, New Orleans LA (January 2022)

- **Co-Organizer**, “Magnetism in Medicine”, **Focus Session at the 2021 American Physical Society March Meeting**
- **Editor**, *Physical Review B* (June 2021 – present)
- **Editor**, *Journal of Alloys and Compounds* (March 2020 – present)
- **Symposium Chair**, 2019 Joint MMM/Intermag conference, Washington DC, January 2018
- **Session Chair**, 2018 ICM conference, San Francisco, July 2018
- **Associate Editor**, *Journal of Applied Physics* (March 2014 – Feb 2020). This is considered one of the world’s premier journal in the field of applied physics.
- **Program Committee and subcommittee coordinator**, 2019 Joint MMM/Intermag conference, Washington DC (January 2019)
- **Publications Co-Chair**, 2018 International Conference on Magnetism (ICM), San Francisco
- **Session Chair**, 2018 International Conference on Magnetism (ICM), San Francisco (July 2018)
- **Session Chair**, Magnetism and Magnetic Materials (MMM) conference, Pittsburgh, PA (Nov. 2017)

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

- USF Faculty Senate (2020 – present)
- USF College of Arts and Sciences Faculty Council (2020-), Deputy Chair 2021-2022
- Tenure & Promotion Committee, School of Natural Sciences and Mathematics (SNSM), CAS, 2011-2017
- Physics Department Faculty Advisory Committee (FAC) (2002 – 2005, 2007 – 2009, 2010 - 2013); FAC Chair (2012-2013), (2014-2015)
- Physics Faculty Search Committees (01 – present)
- Steering Committee: USF Functional Multi-scale Materials by Design (FMMD) initiative
- College of Arts & Sciences Tenure & Promotion Committee (2005 – 2007)
- Physics Department Undergraduate Committee (2016 – present)
- Physics Department Graduate Committee (2000 – 2016)
- Physics Department Graduate Admissions Committee (2005 - 2017)
- CAS Dean’s Search Committee (2004)
- Colloquium Chairman (2001 – 2002)
- USF College of Arts and Sciences Nobel Laureate Lecture series organizing committee (2002 – 2004)