

**Hari Srikanth, Ph.D.****Distinguished University Professor****2022 Humboldt Research Awardee****2019 Fulbright US Scholar****2019 IEEE Magnetics Society****Distinguished Lecturer****Group Leader** – Functional Materials

Laboratory

**Director** -Florida Initiative for Emergent

Low Dimensional Quantum Materials

(FIELD-QM)

**Fellow** –American Physical Society**Fellow** -Institute of Physics**Associate Editor** -Physical Review B**University of South Florida**

Department of Physics, ISA2019

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<https://www.linkedin.com/in/hari-srikanth-usf/><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), Federal University of Rio de Janeiro, Brazil (funded by American Physical Society), Fulbright visiting professorship at Nanyang Technological University, Singapore (2019-2022), Visiting Professor at Indian Institute of Technology Bombay (2021-present), Humboldt Visiting Professor at University of Duisburg-Essen (2022-present), Visiting Professor at Indian Institute of Science Bangalore (2025-2026), Visiting Professor at Vellore Institute of Technology (2027)

**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**

## Highlights of professional achievements

- **Distinguished University Professor at University of South Florida (2020-present)**
- **Lead PI grants ~ \$7.3 Million** received during past 20 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 ~ \$11 Million**
- **Over 325 journal publications** [~285 papers published from USF since joining the university in Fall 2000]
- **2 US Patents (7, 268, 563 and 9,384,877)**
- **Recipient of Alexander von Humboldt Research Award 2022**
- **Awarded 2019 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 (March 2020-2023)**
- **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**
- **Focus Topic co-organizer “AI meets Magnetism”, 2027 APS Global Summit**
- **Symposium Co-organizer, Joint European Magnetism Symposia (JEMS) 2027**
- **Special Events Chair, 2025 MMM conference**
- **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 25 years at USF.**

- **Graduated 25 PhD students and 5 MS students** in the past 23 years
- **Mentored 15 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: (325+)

(14207 citations as of October 2026. h-index: 67; Source: Google Scholar)

Selected recent publications over the past 3 years

1. “Synthesis and in vitro evaluation of PEG/PEI coated Fe<sub>3</sub>O<sub>4</sub> nanoparticles for magnetic hyperthermia” -*E. Jaberolansar, S.Q. Jan, R. Roy Chowdhury*, Shyam S. Mohapatra, Subhra Mohapatra and **H. Srikanth**, *Journal of Alloys and Compounds* **1077**, 189531 (2026)
2. “Intrinsic Berry curvature driven anomalous Hall and Nernst effect in Co<sub>2</sub>MnSn” -B. Das, A. Bhattacharya, **A. Chanda**, C.K. Barman, **J. Nag**, **H. Srikanth**, A. Alam and I. Das, *Small* **e00063** (2026)
3. “Probing magnetic field sensitive criticality in MnP single crystals: From low-field scaling to high-field crossover” -**N.T.M. Duc**, N.W. Mudiyansele, S. Mozaffari, H.S. Arachchige, **H. Srikanth**, D. G. Mandrus and M.H. Phan, *Physical Review B* **113**, 224433 (2026)
4. “Carbon confinement as a design principle for multiphase magnetic nanocomposites with broadband functionality” -*S. Q. Jan, R. Roy Chowdhury, N. Schulz*, A.I. Ojo, M. G. de la Vega, J.A. Blanco, P. Gorria, D. Arena and **H. Srikanth**, *Advanced Functional Materials* **e31306** (2026)
5. “Recent progress in anomalous Nernst effect in magnetic Heusler alloys -Topical Review” -**A. Chanda**, **N. Schulz**, **R. Roy Chowdhury**, M.H. Phan and **H. Srikanth**, *Journal of Physics: Condensed Matter* **37**, 473007 (2025)
6. “Low-dimensional magnetocaloric materials for energy-efficient magnetic refrigeration: Does size matter?” -**NTM Duc**, **H. Srikanth** and M.H. Phan, *Science and Technology of Advanced Materials* **26**, 2546287 (2025) (invited review)
7. “Large Anomalous Hall Effect in a nanocrystalline room temperature ferromagnetic CoCrFeNiGa high-entropy alloy” -**R. Roy Chowdhury**, N.F. Shkodich, T. Roy, T. Smoliarova, D.K. Le, E. Kasotakis, M. Shirai, M. Farle, M.H. Phan and **H. Srikanth**, *ACS Nano* **19**, 32967 (2025)
8. “Magnetization dynamics in Co-decorated cobalt ferrite nanocomposites: Implications for high frequency electromagnetic shielding” -*S.Q. Jan, N. Schulz, R. Roy Chowdhury*, A.I. Ojo, D.H. Anjum, H. Khurshid, D.A. Arena and **H. Srikanth**, *ACS Applied Nanomaterials* **8**, 10459 (2025)
9. “Superparamagnetic superparticles for magnetic hyperthermia: overcoming the particle size limit” -*S. B. Attanayake*, Minh Dang Nguyen, **A. Chanda**, **J. Alonso**, Inaki Orue, T. Randall Lee, **H. Srikanth** and M. H. Phan, *ACS Applied Materials and Interfaces* **17**, 19436 (2025)
10. “Robust Nernst magneto-thermoelectricity in topological spin semi-metal FeCrRhX (X = Si,Ge)” -**A. Chanda**, J. Nag, **N. Schulz**, D. De Tellem, A. Alam, K. G. Suresh, M. H. Phan and **H. Srikanth**, *Physical Review B* **111**, 094416 (2025)
11. “Discovery of giant positive magnetoresistance in proximity to helimagnetic order in manganese phosphide nanostructured films” -*N. Mudiyansele, D. De Tellem, A. Chanda*, A.T. Duong, T-N. Hsieh, J. Frisch, M. Bar, R.P. Madhugaria, S. Mozaffari, H.S. Arachchige, D. G. Mandrus, **H. Srikanth**, S. Witanachchi and M.H. Phan, *ACS Applied Materials and Interfaces* (April 2025) <https://doi.org/10.1021/acsami.4c21202>

12. “Unraveling the structural dependency of Weyl nodes in  $\text{Co}_2\text{MnGa}$ ” -N. Schulz, G. Pantano, D. DeTellem, A. Chanda, E.M. Clements, M. McGuire, A. Markou, C. Felser, D.A. Arena, J. Gayles, M.H. Phan and H. Srikanth, *Physical Review B* **110**, 054419 (2024)
13. “Large anomalous Nernst effect and its bipolarity in quaternary equiatomic Heusler alloys  $\text{CrRuXGe}$  ( $X = \text{Co}$  and  $\text{Mn}$ )” -**A. Chanda**, J. Nag, N. Schulz, A. Alam, K.G. Suresh, M.H. Phan and **H. Srikanth**, *Physical Review B* **B109**, 224415 (2024)
14. “Tailoring the magnetic and hyperthermic properties of biphasic iron oxide nanocubes through post-annealing” -S. Attanayake, A. Chanda, R. Das, M.H. Phan and H. Srikanth, *Crystals* **14**, 519 (2024) <https://doi.org/10.3390/cryst14060519>
15. “Thermally generated magnonic spin currents in a polycrystalline gadolinium iron garnet thin film with perpendicular magnetic anisotropy” -**A. Chanda**, C. Holzmann, N. Schulz, D. Stein, M. Albrecht, M.H. Phan and H. Srikanth, *Journal of Applied Physics* **135**, 123901 (2024)
16. “Temperature evolution of magnon propagation length in  $\text{Tm}_3\text{Fe}_5\text{O}_{12}$  thin films: Roles of magnetic anisotropy and Gilbert damping” -**A. Chanda**, C. Holzmann, N. Schulz, A. Ullrich, D. DeTellem, M. Albrecht, M. Gross, C.A. Ross, D. A. Arena, M.H. Phan and **H. Srikanth**, *ACS Nano* **18**, 7223 (2024) <https://doi.org/10.1021/acsnano.3c12495>
17. “Large thermo-spin effects Heusler alloy-based spin gapless semiconductor thin films” -**A. Chanda**, Deepika Rani, D. DeTellem, N. Alzahrani, D. A. Arena, S. Witanachchi, Ratnamala Chatterjee, M.H. Phan and **H. Srikanth**, *ACS Applied Materials & Interfaces* **15**, 53697 (2023)
18. “Intrinsic Berry curvature driven anomalous Nernst thermopower in the semimetallic Heusler alloy  $\text{CoFeVSb}$ ” -**A. Chanda**, J. Nag, A. Alam, K.G. Suresh, M.H. Phan and **H. Srikanth**, *Physical Review B (LETTER)* **107**, L220403 (2023)
19. “Surface termination-enhanced magnetism at nickel ferrite/2D nanomaterial interfaces: implications for spintronics” -N. Schulz, **A. Chanda**, G. Datt, C.S. Ong, F. Sorgenfrei, S. Ambardar, D.V. Voronine, O. Eriksson, T. Sarkar, V. Kamalakar, M.H. Phan and **H. Srikanth**, *ACS Applied Nanomaterials* (June 2023) <https://doi.org/10.1021/acsanm.3c01352>
20. “Competing magnetic interactions and field-induced metamagnetic transition in highly crystalline phase-tunable iron oxide nanorods” -S. Attanayake, **A. Chanda**, T. Hulse, R. Das, M.H. Phan and **H. Srikanth**, *Nanomaterials* **13**, 1340 (2023)
21. “From multi-segmented to core-shell nanorods: morphology evolution in Fe-Au nanorods by tuning fabrication conditions” -Hafsa Khurshid, Rahaana Yoosuf, Humaira Zafar, *Supun Attanayake*, Muhammad Azeem, Bashar Issa, Dalaver Anjum and **Hari Srikanth**, *Nanotechnology* **34**, 18502 (2023)
22. “Enhanced magnetism and anomalous Hall transport through 2D  $\text{WS}_2$  interfaces” -*Chang-Ming Hung*, D.T.Dang, **A. Chanda**, D. Detellem, N. Alzahrani, N. Kapuruge, *Y.T.H Pham*, M. Liu, D. Zhou, H. Gutierrez, D.A. Arena, M. Terrones, S. Witanachchi, L.M. Woods, H. Srikanth and M.H. Phan, *Nanomaterials* **13**, 771 (2023)
23. “Magnetism and spin dependent transport phenomena across Verwey and Morin transitions in iron oxide/Pt bilayers” -**A. Chanda**, *Chang-Ming Hung*, Anh Tuan Dong, S. Cho, **H. Srikanth** and M.H. Phan, *Journal of Magnetism and Magnetic Materials* **568**, 170370 (2023)
24. “Emergence of asymmetric skew scattering dominated anomalous Nernst effect in spin gapless semiconductors  $\text{Co}_{1+x}\text{Fe}_{1-x}\text{CrGa}$ ” -**A. Chanda**, Deepika Rani, J. Nag, A. Alam, K.G. Suresh, M.H. Phan and **H. Srikanth**, *Physical Review B* **106**, 134416 (2022)
25. “Emergent magnetism and exchange bias effect in iron oxide nanocubes with tunable phase and size” -*Supun Attanayake*, **Amit Chanda**, Raja Das, Nalaka Kapuruge, Humberto Gutierrez, Manh-Huong Phan and **Hari Srikanth**, *Journal of Physics: Condensed Matter* **34**, 495301 (2022) <https://doi.org/10.1088/1361-648X/ac99cc>

26. “Proximity enhanced magnetism at NiFe<sub>2</sub>O<sub>4</sub>/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>
27. “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* **32**, 2109170 (2022) <https://doi.org/10.1002/adfm.202109170>

## Professional/Conference Service (past 3 years)

- **Special Events Chair**, Magnetism and Magnetic Materials (MMM) 2025, Palm Beach, FL (October 2025)
- **IEEE Magnetics Society Administrative Committee (AdCom) Member** (Elected for term Jan 2024 – Dec 2026)
- **ERATO Evaluation and Advisory Subcommittee Member**, Japan Science and Technology Agency (2023-2026)
- **International Advisory Board Member**, 2026 NANO conference, Genova, Italy
- **Theme Topic Co-organizer**, 2024 ICM Conference, Bologna, Italy
- **Chair**, Workshop in AI in physics publishing, APS Editors’ meeting, Long Island NY (Oct 2023)
- **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 – December 2023)
- **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

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

- USF Distinguished University Professors Recommending Committee (2024- present)
- USF Faculty Senate (2020 – 2023)
- USF College of Arts and Sciences Faculty Council (2020-2022; 2024-2025), Deputy Chair 2021-2022\_Physics Department Faculty Advisory Committee (FAC) (2002 – 2005, 2007 – 2009, 2010 - 2013); FAC Chair (2012-2013), (2014-2015)