

Résumé

Sreekar Guddeti
Department of Physics, IISc Bangalore

Ph:+91-*****2537
gsreekar[at]iisc.ac.in, 🏠

ACADEMIC RECORD

- **Indian Institute of Science Bangalore** *Bengaluru, 2021*
Ongoing Ph. D. (Science) *CGPA: 6.0/8.0*
- **Indian Institute of Technology Bombay** *Mumbai, 2012*
B. Tech + M. Tech Dual Degree (Engineering Physics) *CPI: 8.0/10.0*

PROJECTS UNDERTAKEN

- **Dzyaloshinskii-Moriya interaction in quasi-PMA Ta/Pt/CoFeB/Pt ultra-thin films**
Ongoing Ph. D. Thesis *Autumn 2012*
with Prof. P. S. Anil Kumar *Physics, IISc*
 - Tilt engineering of sputtered Ta/Pt/CoFeB/Pt PMA ultra-thin films.
 - Deterministic current induced magnetization switching in these films.
 - Wide-field Kerr microscopy based estimation of Dzyaloshinskii-Moriya interaction.
- **Electronic Properties of Graphene Nanoribbons**
M.Tech. Thesis *Autumn 2010*
with Prof. Alok Shukla *Physics, IITB*
 - Tight binding method, and DFT based calculations in armchair and zigzag ribbons.
 - Half-metallicity of ribbons is ascertained from spin polarization of edge states.

PUBLICATIONS

 Google Scholar

- B. Sinha, S. Guddeti, and P. S. A. Kumar, “Engineering the tilt angle in quasi perpendicularly magnetized Ta/Pt/CoFeB/Pt thin films,” *Physica B: Condensed Matter*, 572, 251–255, 2019.
- S. Guddeti, A. K. Gopi, and P. S. Anil Kumar, “Effect of tilted magnetic anisotropy on the deterministic current-induced magnetization reversal in quasi perpendicularly magnetized Ta/Pt/CoFeB/Pt multilayers,” *IEEE Transactions on Magnetics*, 54 (11), 1500305, 2018.

TEACHING EXPERIENCE

- TA to PH 203 Quantum Mechanics I course *Autumn 2016*
with Prof. Diptiman Sen *CHEP, IISc*
- TA to UP101 Introductory Physics I course *Autumn 2014*
with (Late) Prof. Venkataraman, Dr. K. Ramesh, Dr. V. P. Bhotla *Physics, IISc*
- JEE instructor *2011*
Worked in doubts session for 4 months *PACE, Mumbai*

AWARDS AND MILESTONES

- CSIR Shyama Prasad Mukherjee Fellow *Autumn 2012*
- AIR 262 in JEE *2005*
- AIR 243 in AIEEE *2005*

SKILLS

- Experimental: Pulsed Laser Ablation, RF and DC Sputtering, Electrical characterization, Optical lithography, Electron Beam Lithography, Ion Beam Etching, Kerr microscopy.
- Hardware: Keithley 2636 AC/DC Current Source, 2182 Nanovoltmeter, Arduino.
- Programming languages: Python, LabVIEW.
- Open-source Operating Systems: GNU/Linux (Debian based).
- Open-source Applications: L^AT_EX, Inkscape, FreeCAD, Git, Fidimag, Quantum Espresso.
- Open-source Libraries: Matplotlib, PyVISA, PyQt, OpenCV, Mayavi.
- Web Tools: HTML, Markdown, GitHub, Jekyll, JS, CSS.
- Natural Languages: English, Hindi, Telugu, Marathi.

CONFERENCES/SCHOOLS

- **InterMag Conference** *Singapore, 2018*
Presented poster entitled “Effect of tilted magnetic anisotropy on the deterministic current induced magnetization reversal in quasi-perpendicularly magnetized Ta/Pt/CoFeB/Pt multilayers”.
- **Joint European Magnetic Symposia** *Glasgow, 2016*
Presented poster entitled “Pulsed Laser Ablation of Exchange Biased Spin Valves”.
- **IEEE Magnetism Summer School** *Minneapolis, 2015*
Attended school on Spintronics.