Mahesh C. Gandikota

CONTACT INFORMATION

Physics Building, Sims Drive
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EDUCATION

Ph.D., Physics, Syracuse University, Syracuse, NY, USA **2015 - Present**

Dissertation Advisor: Prof. J. M. Schwarz

G.P.A.: 3.7/4.0

Integrated M.Sc., Physics, NISER, Orissa, India **2015**

National Institute of Science Education and Research

Thesis Advisor: Prof. Somendra Bhattacharjee,
Ashoka University, Bihar, India

G.P.A.: 8.2/10.0

Twelfth grade board exam, National College, Bangalore, India **2010**

Marks: 81%

Tenth grade board exam, HJKP, Bangalore, India **2008**

Marks: 97.4%

EMPLOYMENT

Research Assistant, Department of Physics, Syracuse University, USA **August 2016–Present**

Teaching Assistant, Department of Physics, Syracuse University, USA **August 2015–Present**

PUBLICATIONS

Under review:

4. M. C. Gandikota and J. M. Schwarz, "Buckling without bending morphogenesis: Nonlinearities, spatial confinement, and branching hierarchies".
3. T. Wöllert, E. Wait, M. C. Gandikota, J. M. Schwarz, G. G. Holz, T. Chew, G. M. Langford, "Motility of microvilli on pancreatic beta cells is Arp2/3-dependent and may represent a dynamic nutrient search strategy".

Published:

2. M. C. Gandikota, Katarzyna Pogoda, Anne van Oosten, T. A. Engstrom, A . E. Patteson, P. A. Janmey, J. M. Schwarz, "Loops versus lines and the compression stiffening of cells", Soft Matter, 16(18), 4389-4406, (2020).
1. S. Paul, M. C. Gandikota, "Fourier Transform of Electric Signal using Kundt's Tube", Student Journal of Physics, 6(2), 95-100, (2016).

ONGOING PROJECTS

1. "Convexity induced rigidity transitions in spring networks" with Amanda Parker and J. M. Schwarz.
2. "Constructing a null model for mouse neural network using principles of statistical mechanics" with Ahmad Borzou and J. M. Schwarz.

Teaching Experience

Recitations/Substitute Lecturer

PHY 216, General Physics II for honors and majors **Spring & Fall 2017, Spring 2018**
PHY 212, General Physics II **Spring & Fall 2016**
PHY 211, General Physics I **Fall 2015**

Labs

AST 101, Our Place in the Universe **Fall 2020**
PHY 102, Major Concepts of Physics II **Spring 2019, 2020**

Grading/Substitute Lecturer

PHY 635, Physical Cell Biology **Fall 2018**
PHY 360, Vibrations, Waves and Optics **Fall 2018**

Mentoring

Undergraduate Students
Alexandra Brown (REU program) **Summer 2016**

Languages

Human: English (fluent), Hindi, Telugu (mother tongue), Kannada (native).

Computer: Bash, C++, Python, Mathematica.

Markup: LaTeX, Markdown, HTML, CSS.

Operating System: Linux, Windows.

Awards

Summer Graduate Fellowship, Soft Matter Program, Syracuse University **Summer 2017**

Henry Levinstein Fellowship, Physics Department, Syracuse University **Summer 2016**

All India Rank 24, Graduate Aptitude Test in Engineering (GATE) **2015**

Summer Research fellow, Indian Academies of Sciences **Summer 2012**

INSPIRE fellowship, Department of Science and Technology, Government of India **2010-15**

Conferences/ Workshops

APS March Meeting, oral presentations. **2017, 2018, 2019, 2020**

Soft Matter Summer School, University of Massachusetts, Amherst. **2017**

Monsoon School: Physics of Life, National Centre for Biological Sciences, Bangalore. **2013**

Summer School in Experimental Physics, NIUS - HBCSE, TIFR. **2012**

Professional Activities and Service

Organizer, Soft Matter Journal Club, Syracuse University. **2019-2020**

Moderator, APS Conference for Undergraduate Women in Physics, Syracuse University. **2016**

Volunteer, Photographer, Active and Smart Matter conference, Syracuse University. **2016**

Volunteer, Science Day, annual joint outreach program to high school students, NISER, IOP, Bhubaneswar. **2011, 2012, 2014**

Non-Academic Activities

President, Argentine Tango Club, Syracuse University. **Fall 2017 - Fall 2020**

Editorial Board, Jignasa, annual magazine of NISER, Bhubaneswar. **2014**

References

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