Mahesh C. Gandikota

CONTACT INFORMATION

Physics Building, Sims Drive
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EDUCATION

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

Thesis Advisor: Prof. J. M. Schwarz

G.P.A.: 3.7/4.0

Integrated M.Sc., Physics, National Institute of Science Education and Research, Orissa, India **2015**

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. 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:

3. M. C. Gandikota and J. M. Schwarz, "Buckling without bending morphogenesis: Nonlinearities, spatial confinement, and branching hierarchies" (accepted for publication in New Journal of Physics).
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, contributed talks. **2017, 2018, 2019, 2020**

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

J. M. Schwarz
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