

Maresh C. Gandikota

CONTACT INFORMATION

Physics Building, Sims Drive
Syracuse University
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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

In preparation:

5. **M. C. Gandikota**, A. Parker, J. M. Schwarz *Convexity induced rigidity transitions*.

Under review:

4. **M. C. Gandikota** and J. M. Schwarz *Buckling without bending morphogenesis: Nonlinearities, spatial confinement, and branching hierarchies*, [arxiv](#).
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 (2020) *Loops versus lines and the compression stiffening of cells*, *Soft Matter*. **16(18)** 4389-4406, [arxiv](#).
1. S. Paul, **M. C. Gandikota**, (2017) *Fourier Transform of Electric Signal using Kundt's Tube*, *Student Journal of Physics*. **6(2)**,95-100, [arxiv](#).

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
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LANGUAGES

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

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

Markup: L^AT_EX, Markdown, HTML, CSS.

Operating System: Linux, Windows.

HONORS AND 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
Summmer 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

J. M. Schwarz, Associate Professor of Physics, Syracuse University
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