

## Maresh C. Gandikota

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### CONTACT INFORMATION

Physics Building, Sims Drive  
Syracuse University  
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[mcgandikota.github.io](https://github.com/mcgandikota)

### 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<sup>A</sup>T<sub>E</sub>X, Markdown, HTML, CSS.

**Operating System:** Linux, Windows.

## AWARDS

<b>Summer Graduate Fellowship</b> , Soft Matter Program, Syracuse University	Summer 2017
<b>Henry Levinstein Fellowship</b> , Physics Department, Syracuse University	Summer 2016
<b>All India Rank 24</b> , Graduate Aptitude Test in Engineering (GATE)	2015
<b>Summer Research fellow</b> , Indian Academies of Sciences	Summer 2012
<b>INSPIRE fellowship</b> , Department of Science and Technology, Government of India	2010-15

## CONFERENCES/ WORKSHOPS

<b>APS March Meeting</b> , oral presentations.	2017, 2018, 2019, 2020
<b>Soft Matter Summer School</b> , University of Massachusetts, Amherst.	2017
<b>Mansoon School: Physics of Life</b> , National Centre for Biological Sciences, Bangalore.	2013
<b>Summer School in Experimental Physics</b> , NIUS - HBCSE, TIFR.	2012

## PROFESSIONAL ACTIVITIES AND SERVICE

<b>Organizer</b> , Soft Matter Journal Club, Syracuse University.	2019-2020
<b>Moderator</b> , APS Conference for Undergraduate Women in Physics, Syracuse University.	2016
<b>Volunteer, Photographer</b> , Active and Smart Matter conference, Syracuse University.	2016
<b>Volunteer</b> , 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, Physics department  
Syracuse University  
229A Physics Building  
Syracuse, NY 13244  
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