

Maresh C. Gandikota

CONTACT INFORMATION	Physics Building, Sims Drive Syracuse University Syracuse, NY - 13210 USA	mcgandikota@gmail.com mcgandikota.github.io
EDUCATION	Ph.D., Physics , Syracuse University, Syracuse, NY, USA 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 Thesis Advisor: Prof. Somendra Bhattacharjee, Ashoka University, Haryana, India G.P.A.: 8.2/10.0 Twelfth grade board exam , National College, Bangalore, India Marks: 81% Tenth grade board exam , HJKP, Bangalore, India Marks: 97.4%	2015 - Present 2015 2010 2008
EMPLOYMENT	Research Assistant , Department of Physics, Syracuse University, USA Teaching Assistant , Department of Physics, Syracuse University, USA	August 2016–Present August 2015–Present
PUBLICATIONS	Under review: 4. T. Wöllert, E. Wait, <u>M. C. Gandikota</u> , 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. <u>M. C. Gandikota</u> and J. M. Schwarz, "Buckling without bending morphogenesis: Nonlinearities, spatial confinement, and branching hierarchies" (accepted for publication in New Journal of Physics). 2. <u>M. C. Gandikota</u> , 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, <u>M. C. Gandikota</u> , "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: L^AT_EX, 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

Associate Professor
Department of Physics
Syracuse University
229A Physics Building
Syracuse, NY 13244
email: jmschw02@syr.edu
office phone: 1-315-443-3887

Cristina Marchetti

Professor
Department of Physics
University of California, Santa Barbara
Broida 6235
Santa Barbara, CA 93106
email: cmarchetti@ucsb.edu
office phone: 1-805-893-5228

Paul Janmey

Professor,
Department of Physiology
Department of Physics and Astronomy
University of Pennsylvania
1010 Vagelos Laboratories
3340 Smith Walk
Philadelphia, PA 19104
email: janmey@pennmedicine.upenn.edu

Alison Patteson

Assistant Professor
Department of Physics
Syracuse University
229C Physics Building
Syracuse, NY 13244
email: aepattes@syr.edu