

PREETI SAHU

Curriculum Vitae

🏠 Physics Building, Room 249
Department of Physics
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DOB

9th June 1992

EDUCATION

- **Syracuse University, Syracuse, NY, USA** CURRENT, FROM-AUG 2015
PH.D. PHYSICS 3.33/4.0
- **NISER, Bhubaneshwar, Odisha, India** AUG 2010-JUN 2015
5-YEARS INTEGRATED BSC.-MSC. PHYSICS 8.3/10

PUBLICATIONS

1. Preeti Sahu*, Janice Kang*, Gonca Erdemci-Tandogan and M. Lisa Manning “Nonlinear analysis of the fluid-solid transition in a model for ordered biological tissues,” submitted, arXiv:1905.12714 (2019). [[arXiv](#)]
2. Preeti Sahu, Daniel M. Sussman, M. Cristina Marchetti, M. Lisa Manning, and J. M. Schwarz “Large-scale mixing and small-scale demixing in a confluent model for biological tissues” submitted, arXiv:1905.00657 (2019). [[arXiv](#)]
3. Preeti Sahu “Interpolating solution in a mechanical model under quench” PRAYAS Student Journal of Physics. Vol 4 Number 6, (Jan- Mar. 2013) published by Indian Association of Physics Teachers [[Link](#)]

INVITED TALK

Talk- *Role of neighbor exchange in fluidization and de-mixing of confluent tissues* MAR 2019
APS March Meeting [[Link](#)]

TEACHING EXPERIENCE

Mentoring REU student: Janice Kang SUMMER 2018
Grad Mentor for Prof. Lisa Manning

PHY 221: General Physics Laboratory I SPRING & FALL 2016
Teaching Assistant for Prof. Walter Freeman

Co-mentoring REU student: Allie Brown SUMMER 2016
Grad Mentor for Prof. Lisa Manning

AST 101: Our Corner of the Universe FALL 2015
Teaching Assistant for Prof. Cristian Armendariz-Picon

CONTRIBUTED POSTERS AND PRESENTATIONS

Talk- *Role of Morphological Differences in Cell Sorting* DEC 2018
ICSM Jaipur

Talk- *Mechanical difference insufficient to create sorting in confluent mixtures* MAR 2018
APS March Meeting

Poster- *The search for physical mechanism of cell sorting in bidisperse confluent tissue* FEB 2018
Mechanics in Morphogenesis Poster Competition, PCTS

Poster- *Understanding how cells group together in confluent biological tissues* FEB 2017
Stevenson Biomaterials Research Poster Competition, Syracuse

UNDERGRADUATE RESEARCH PROJECTS

Rheological Response of Active Glasses	2014 - 2015
Guide: DR. A.V. ANIL KUMAR, <i>NISER, Bhubaneswar</i>	
Study Kinesin Conformational Change in apo-state	SUMMER 2014
Guide: DR. JARED C COCHRAN, <i>IU, Bloomington</i>	
Diffusion in 1D and 2D	SUMMER 2013
Guide: PROF. ABHISHEK DHAR, <i>ICTS, Bangalore</i>	
Interpolating solution in a mechanical model under quench	SUMMER 2012
Guide: DR. SUDIPTA MUKHERJI, <i>Institute of Physics, Bhubaneswar</i>	
A Study of Genetic Factors for RPL	SUMMER 2011
Guide: DR. DEBASMITA P. ALONE, <i>NISER, Bhubaneswar</i>	

SCIENCE WORKSHOPS

Mechanics in Morphogenesis workshop	FEB 2018
<i>PCTS, Princeton University</i>	
Summer School- Soft Solids and Complex fluids	SUMMER 2017
<i>UMass, Amherst</i>	
Monsoon School- Physics of Life	SUMMER 2013
<i>NCBS-ICTS, Bangalore</i>	

ACHIEVEMENTS

- 2018 - received [SLM travel grant](#) \$1000.
- 2014 - Awarded Khorana fellowship to do a 10 weeks summer internship in Indiana University.
- 2014 - Selected in HRI's VSP and ICTS's S N Bhatt Memorial Excellence Fellowship Program.
- 2013 - Awarded Summer Research Fellowship by Indian Academy of Sciences to work in ICTS.
- 2013 - Runners-up team in a national-level science quiz competition called MIMAMSA 2013.
- 2012 - Batch Topper in Physics Dept. of Physics with SGPA- 9.4/10.
- 2011 - Awarded a generous fellowship by Govt. of India under KVPY (4 years)
- 2010 - Awarded Govt. sponsored INSPIRE fellowship for 1-year after qualifying NEST examination

COMPUTER SKILLS

Advanced Knowledge	\LaTeX , MATLAB C++, Linux, Excel Microsoft Windows	Intermediate Knowledge	Bash Scripting MATHEMATICA, GIT
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EXTRA-CURRICULAR ACTIVITIES

1. Hindustani Classical Vocalist & Graduate president of SPICMACAY Syracuse
2. Volunteer for ICAM workshop on Smart and Active Matter at Syracuse University (June 2016)
3. Active member in organizing 2016 APS Conference for UG Women in Physics
4. UGCS Student Representative & Physics Student Seminar Convener at NISER

REFERENCES

Lisa Manning - Ph.D. advisor Syracuse University 229-B, Dept. of Physics Physics Building, Syracuse, NY 13244, USA mmanning@syr.edu (☎ : 315.443.3920)	Cristina Marchetti - Ph.D. advisor Broida 6235, Dept. of Physics University of California Santa Barbara, CA 93106-9530, USA cmarchetti@ucsb.edu (☎ : 805.893.5228)	J. M. Schwarz - Ph.D. advisor Syracuse University 229-A, Dept. of Physics Physics Building, Syracuse, NY 13244, USA jschwarz@physics.syr.edu (☎ : 315.443.3887)
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