

MRITYUNJAY KOTHARI

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EDUCATION

Ph.D. Solid Mechanics, **Brown University**, November 2018
Dissertation: “A study of curvature localization in multilayer graphene”
Committee: Kyung-Suk Kim (chair), Huajian Gao, David Henann, Derek Stein

Sc.M. Solid Mechanics, **Brown University**, May 2016

B.Tech. Mechanical Engineering, **Indian Institute of Technology Kanpur**, May 2013

PROFESSIONAL APPOINTMENTS

Jun 2019- **Postdoctoral Associate**
Nonlinear Solid Mechanics Group, **MIT**
Advisor: Tal Cohen

Jan 2019 - May 2019 **Postdoctoral Associate**
School of Engineering, **Brown University**
Advisor: Vikas Srivastava

PUBLICATIONS

Kothari, M., Niu, S. and Srivastava, V., 2019. A thermo-mechanically coupled finite strain model for phase-transitioning austenitic steels in ambient to cryogenic temperature range. **Journal of the Mechanics and Physics of Solids**, p.103729.

Kothari, M., Cha, M.H., Lefevre, V. and Kim, K.S., 2019. Critical curvature localization in graphene. II. Nonlocal flexoelectricity-dielectricity coupling. **Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences**, 475(2221), p.20180671.

Kothari, M., Cha, M.H. and Kim, K.S., 2018. Critical curvature localization in graphene. I. Quantum-flexoelectricity effect. **Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences**, 474(2214), p.20180054.

Li, R., **Kothari, M.**, Landauer, A.K., Cha, M.H., Kwon, H. and Kim, K.S., 2018. A New Subcritical Nanostructure of Graphene—Crinkle-Ruga Structure and Its Novel Properties. **MRS Advances**, pp.1-7.

FELLOWSHIPS AND AWARDS

- 2019 **Outstanding Thesis Award** for best graduate student thesis, Brown University
- Spring 2018 **International Travel Award**, Graduate School, Brown University
- Spring 2017 **Conference Travel Award**, Graduate School, Brown University
- Spring 2017 **Conference Travel Award**, Graduate Student Council, Brown University
- 2013-2014 **Tisch Fellowship**, Brown University
One of three university-wide fellowships for best incoming graduate student
- 2012 & 2011 **Summer Undergraduate Research Grant for Excellence**, IIT Kanpur
- 2011 & 2010 **Certificate of Merit for Academic Excellence**, IIT Kanpur
Awarded to top 5% academic performers

INVITED TALKS

- 2018 “Curvature localization in graphene”, Department of Applied Mechanics, **IIT Delhi**

CONFERENCES AND PRESENTATIONS

- 2018 “Curvature localization in graphene”, 9th annual NEW.Mech, Brown University, Providence, RI
- 2018 “Curvature localization in graphene”, 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, IL
- 2017 “Discovery of Graphene Crinkle as a Molecular Zipper”, Poster Presentation, Institute for Molecular and Nanoscale Innovation, 10th Anniversary Celebration, Providence, RI
- 2017 “Mechanics of curvature localization in graphene”, Society of Engineering Science 54th Annual Technical Meeting, Boston, MA
- 2017 “Critical behavior of curvature localization in graphene”, American Physical Society March Meeting, New Orleans, LA