

Stanford



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Postdoctoral Scholar, Electrical Engineering

CONTACT INFORMATION

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Bio

BIO

Tara Peña is a postdoctoral scholar at Stanford University, where she is working with Prof. Eric Pop and is supported by the NSF MPS-Ascend postdoctoral fellowship. Peña received her Ph.D. (2023) in Electrical and Computer Engineering (ECE) from the University of Rochester, where she won the university-wide Provost's Fellowship then the nationwide NSF GRFP award. Before obtaining her doctorate, she earned a M.S. degree in ECE from the University of Rochester (2019) and a B.S. degree in Physics from Adelphi University (2017). Peña's research interests include strain engineering nanomaterials to uncover advanced device structures.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Rochester (2023)
- Master of Science, University of Rochester (2019)
- Bachelor of Science, Adelphi University (2017)

STANFORD ADVISORS

- Eric Pop, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=NzbUM7YAAAAJ&hl=en&oi=ao>
- LinkedIn: <https://www.linkedin.com/in/tarapena>
- Pop Lab Website: <http://poplab.stanford.edu/people.html>

Publications

PUBLICATIONS

- **Patternable Process-Induced Strain in 2D Monolayers and Heterobilayers.** *ACS nano*
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- **An Atomistic Insight into Moire Reconstruction in Twisted Bilayer Graphene beyond the Magic Angle.** *ACS applied engineering materials*
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 - **Dynamic adhesion of 2D materials to mixed-phase BiFeO₃ structural phase transitions** *JOURNAL OF APPLIED PHYSICS*
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 - **Mechanical Properties and Strain Transfer Behavior of Molybdenum Ditelluride (MoTe₂) Thin Films** *JOURNAL OF ENGINEERING MATERIALS AND TECHNOLOGY-TRANSACTIONS OF THE ASME*
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 - **Strain engineering 2D MoS₂ with thin film stress capping layers** *2D MATERIALS*
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 - **Uniaxial and biaxial strain engineering in 2D MoS₂ with lithographically patterned thin film stressors** *APPLIED PHYSICS LETTERS*
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 - **Strain tuning of the emission axis of quantum emitters in an atomically thin semiconductor** *OPTICA*
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 - **Strain-based room-temperature non-volatile MoTe₂ ferroelectric phase change transistor** *NATURE NANOTECHNOLOGY*
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