

# EMILY M. NARDONI

ASSISTANT PROFESSOR OF PHYSICS

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February 1, 2026

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<b>EDUCATION</b>	PH.D. IN PHYSICS, UNIVERSITY OF CALIFORNIA, SAN DIEGO Dissertation: <i>Aspects of Supersymmetric Conformal Field Theories in Various Dimensions</i> Advisor: Kenneth Intriligator	Sep. 2018
	<ul style="list-style-type: none"><li>• Strings 2018 Fellowship recipient (awarded travel funds), 2018.</li><li>• UC President's Dissertation Year Fellowship recipient (\$22,000), 2017-18.</li><li>• Barbara &amp; Paul Saltman Excellent Teaching Award recipient (\$500), 2017-18.</li><li>• Achievement Rewards for College Scientists (ARCS) scholar (\$30,000), 2014-18.</li><li>• Physics Chair's Challenge Winner (awarded travel funds), 2016.</li></ul>	
	B.S. IN PHYSICS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY Research Advisors: Peter Fisher, Iain Stewart	Jun. 2013
	<ul style="list-style-type: none"><li>• Selected Paul E. Gray UROP Researcher (awarded research funds), 2011.</li></ul>	
<b>EMPLOYMENT</b>	ASSISTANT PROFESSOR OF PHYSICS Physics & Astronomy Department Vassar College, Poughkeepsie, NY	Aug. 2024
	KAVLI FELLOW & POSTDOCTORAL SCHOLAR Kavli Institute for the Physics and Mathematics of the Universe University of Tokyo, Japan	Oct. 2021 - Jul. 2024
	<ul style="list-style-type: none"><li>• Awarded Kavli Fellowship (increased salary and travel funding), 2021.</li></ul>	
	POSTDOCTORAL SCHOLAR Mani L. Bhaumik Institute for Theoretical Physics University of California, Los Angeles, CA	Sep. 2018 - Sep. 2021
<b>HONORS &amp; AWARDS</b>	<i>Simons Foundation Grant Recipient</i> Funds awarded by SFI to lead a Working Group at the Aspen Center for Physics.	Aug. 2023
<b>RESEARCH PUBLICATIONS</b>	<ol style="list-style-type: none"><li>18. <i>Cascading from <math>N = 2</math> Supersymmetric Yang-Mills Theory to Confinement and Chiral Symmetry Breaking in Adjoint QCD</i> E. D'Hoker, T. Dumitrescu, E. Gerchkovitz &amp; <b>E. Nardoni</b>, Phys.Rept. 1158 (2026) 1-99, arXiv:2412.20547.</li><li>17. <i>Large Landscape of 4d Superconformal Field Theories from Small Gauge Theories</i> M. Cho, K. Maruyoshi, <b>E. Nardoni</b> &amp; J. Song, JHEP 11 (2024) 010, arXiv:2408.02953.</li></ol>	

16. *Dimensionally Reducing Generalized Symmetries from (3+1)-Dimensions*  
**E. Nardoni**, M. Sacchi, O. Sela, G. Zafir & Y. Zheng, JHEP 07 (2024) 110, arXiv:2403.15995.
15. *Dualities of Adjoint SQCD and Supersymmetry Enhancement*  
K. Maruyoshi, **E. Nardoni** & J. Song, JHEP 09 (2023) 082, arXiv:2306.08867.
14. *Symmetry TFTs and Anomalies of Non-Invertible Symmetries*  
J. Kaidi, **E. Nardoni**, G. Zafir & Y. Zheng, JHEP 10 (2023) 053, arXiv:2301.07112.
13. *Exploring the Strong-Coupling Region of  $SU(N)$  Seiberg-Witten Theory*  
E. D'Hoker, T. Dumitrescu & **E. Nardoni**, JHEP 11 (2022) 102, arXiv:2208.11502.
12. *Aspects of Irregular Punctures via Holography*  
I. Bah, F. Bonetti, R. Minasian, **E. Nardoni** & T. Waddleton, JHEP 11 (2022) 131, arXiv:2207.10094.
11. *M5-brane Sources, Holography, and Argyres-Douglas Theories*  
I. Bah, F. Bonetti, R. Minasian & **E. Nardoni**, JHEP 11 (2021) 140, arXiv:2106.01322.
10. *Holographic Duals of Argyres-Douglas Theories*  
I. Bah, F. Bonetti, R. Minasian & **E. Nardoni**, Phys.Rev.Lett. 127 (2021) no.21, 211601, arXiv:2105.11567.
9. *Revisiting the Multi-Monopole Point of  $SU(N)$   $\mathcal{N} = 2$  Gauge Theory in Four Dimensions*  
E. D'Hoker, T. Dumitrescu, E. Gerchkovitz & **E. Nardoni**, JHEP 09 (2021) 003, arXiv:2012.11843.
8. *Renormalization Group Improvement of the Effective Potential: an EFT Approach*  
A. Manohar & **E. Nardoni**, JHEP 04 (2021) 093, arXiv:2010.15806.
7. *Anomalies of QFTs from M-theory and Holography*  
I. Bah, F. Bonetti, R. Minasian & **E. Nardoni**, JHEP 2001 (2020) 125, arXiv:1910.04166.
6. *Anomaly Inflow for M5-branes on Punctured Riemann Surfaces*  
I. Bah, F. Bonetti, R. Minasian & **E. Nardoni**, JHEP 1906 (2019) 123, arXiv:1904.07250.
5. *Class  $\mathcal{S}$  Anomalies from M-theory Inflow*  
I. Bah, F. Bonetti, R. Minasian & **E. Nardoni**, Phys.Rev.D 99 (2019) no.8, 086020, arXiv:1812.04016.
4. *Landscape of Simple Superconformal Field Theories in 4d*  
K. Maruyoshi, **E. Nardoni** & J. Song, Phys.Rev.Lett. 122 (2019) no.12, 121601, arXiv:1806.08353.
3. *Structure of Anomalies of 4d SCFTs from M5-branes, and Anomaly Inflow*  
I. Bah & **E. Nardoni**, JHEP 1903 (2019) 024, arXiv:1803.00136.
2. *4d SCFTs from Negative-Degree Line Bundles*  
**E. Nardoni**, JHEP 1808 (2018) 199, arXiv:1611.01229.

1. *Deformations of  $W_{A,D,E}$  SCFTs*  
K. Intriligator & **E. Nardoni**, JHEP 1609 (2016) 043, arXiv:1604.04294.

\*Author listings follow the standard high-energy theory convention of alphabetical ordering.

## INVITED COLLOQUIA

	University at Albany, SUNY, Department of Physics Colloquium	Nov. 2024
	McGill University, Department of Physics Colloquium	Oct. 2022

## CONFERENCES & WORKSHOPS

<i>Paths to QFT (Organizer)</i> Workshop, Simons Center, New York.	Jun. 2026
<i>Global Categorical Symmetries (Invited)</i> Annual Collaboration Meeting, New York.	Nov. 2025
<i>Global Categorical Symmetries (Invited)</i> Annual Collaboration Meeting, New York.	Nov. 2024
<i>Paths to Quantum Field Theory 2024 (Invited Speaker)</i> Conference, Sarajevo, Bosnia and Herzegovina.	Jul. 2024
<i>Strings and Geometry (Invited Speaker)</i> Conference, Hamburg University / DESY, Germany.	May 2024
<i>Towards Realistic Physics at Large Quantum Number (Invited Speaker)</i> Workshop, Kavli IPMU, Japan.	May 2024
<i>Aspects of Quantum Field Theory (Invited Speaker)</i> Workshop, KAIST, Korea.	Apr. 2024
<i>Envisaging Future Trajectories in Effective Field Theory (Invited Speaker)</i> Conference, Kavli IPMU, Japan.	Mar. 2024
<i>Global Categorical Symmetries (Invited)</i> Annual Collaboration Meeting, New York.	Nov. 2023
<i>Recent Trends in Supersymmetric Field Theories (Invited Speaker)</i> Workshop, Jeju Island, Korea.	Oct. 2023
<i>Defects, Strings and Fields 2023 (Invited Speaker)</i> Workshop, Jeju Island, Korea.	Sep. 2023
<i>Hidden Holographic Structures in Symmetry Broken Phases (Group Leader)</i> Working Group, Aspen Center for Physics.	Aug. 2023
<i>SUSY 2023 (Invited Plenary Speaker)</i> Conference, University of Southampton.	Jul. 2023
<i>SUSY-50 (Invited Speaker)</i> Conference, William I. Fine Theoretical Physics Institute, Minnesota.	May 2023

<i>Quark Confinement 2023 (Invited Speaker)</i>	May 2023
Workshop, William I. Fine Theoretical Physics Institute, Minnesota.	
<i>QFT and Related Mathematical Aspects (Invited Speaker)</i>	Mar. 2023
Workshop, Shuzenji Sogo Kaikan, Osaka Central Advanced Mathematical Institute.	
<i>Geometry and Automorphy of Supersymmetric Partitions (Organizer)</i>	Feb. 2023
Workshop, Kavli IPMU.	
<i>Global Categorical Symmetries (Invited)</i>	Nov. 2022
Annual Collaboration Meeting, New York.	
<i>Geometry of (S)QFT (Invited Speaker &amp; Key Participant)</i>	Oct. 2022
Workshop, Simons Center for Geometry and Physics, Stony Brook.	
<i>Strings 2022, Vienna (Invited Speaker)</i>	Jul. 2022
• Recording: <a href="https://indico.cern.ch/event/1085701/contributions/4940894/">https://indico.cern.ch/event/1085701/contributions/4940894/</a>	
<i>Global Categorical Symmetries (Invited Speaker)</i>	Jun. 2022
Workshop, Perimeter Institute.	
<i>Geometry, Representation Theory &amp; Quantum Fields (Invited Speaker; virtual)</i>	Mar. 2022
Workshop, Osaka City University.	
<i>Geometrization of (S)QFTs in <math>D \leq 6</math> (Invited Speaker &amp; Key Participant)</i>	Feb. 2022
Conference, Aspen Center for Physics.	
<i>Geometric Correspondences of Gauge Theories (Invited Speaker; virtual)</i>	Sep. 2021
Workshop, SISSA, Trieste.	
<i>Southwest Strings Meeting 2021 (Invited Speaker; virtual)</i>	Mar. 2021
<i>Superconformal Field Theories and Geometry</i>	Aug. 2018
Workshop, Aspen Center for Physics.	
<i>Recent Developments in Noncommutative Algebra (Invited Speaker)</i>	Mar. 2018
Conference, University of Washington.	
<i>Southern California Graduate Strings Meeting (Organizer)</i>	May 2017
Conference, University of California, San Diego.	
<i>The Role of Topology in Physics</i>	Jul. 2016
Workshop, Simons Center for Geometry and Physics, Stony Brook.	
<i>Southern California Graduate Strings Meeting (Invited Speaker)</i>	May 2016
Conference, Caltech.	
<i>American Physical Society April Meeting (Speaker)</i>	Apr. 2016
<i>Jets and Quantum Fields for LHC and Future Colliders</i>	Jul. 2013
Workshop, Erwin Schrodinger International Institute for Mathematical Physics, Vienna.	
 <b>INVITED SEMINARS</b>	
<i>Yukawa Institute for Theoretical Physics, Kyoto University, Seminar</i>	May 2024

Asia Pacific Center for Theoretical Physics, Pohang, Seminar	Apr. 2024
Imperial College London, Quiver Meetings (virtual)	Dec. 2023
Osaka University, Particle Theory Group Seminar	Oct. 2023
University of California, Los Angeles, String Theory Seminar	May 2023
University of Chicago, Particle Theory Seminar	Apr. 2023
Korea Institute for Advanced Study, Strings Seminar	Feb. 2023
Symmetry Seminar, international online seminar series (virtual)	Feb. 2023
University of California, San Diego, Particle Theory Seminar	Feb. 2023
Simons Center for Geometry and Physics, Stony Brook, Seminar	Mar. 2022
CERN, String Theory Seminar (virtual)	Jan. 2022
King's College London, Theoretical Physics Seminar (virtual)	Dec. 2021
University of Tokyo, Hongo Campus, Particle Physics Seminar (virtual)	Nov. 2021
Massachusetts Institute of Technology, String/Gravity Seminar (virtual)	Apr. 2021
Harvard University, CMSA Seminar (virtual)	Mar. 2021
• Recording: <a href="https://www.youtube.com/watch?v=CRlsuQKnGLk">https://www.youtube.com/watch?v=CRlsuQKnGLk</a>	
All Things EFT international online seminar series (virtual)	Mar. 2021
• Recording: <a href="https://www.youtube.com/watch?v=h89BtQl06fg">https://www.youtube.com/watch?v=h89BtQl06fg</a>	
University of Pennsylvania, Theory Seminar (virtual)	Mar. 2021
Kavli IPMU, String/Math Seminar (virtual)	Mar. 2021
University of Chicago, Particle Theory Seminar (virtual)	Nov. 2020
QFT and Geometry international online seminar series (virtual)	Nov. 2020
• Recording: <a href="https://sites.google.com/view/qftandgeometryseminars/">https://sites.google.com/view/qftandgeometryseminars/</a>	
University of California, San Diego, Particle Theory Seminar (virtual)	Nov. 2020
SLAC National Accelerator Laboratory, Theory Seminar (virtual)	Apr. 2020
Caltech, High Energy Theory Seminar	Mar. 2019
University of Texas at Austin, Theory Group Seminar	Jan. 2019
Seoul National University, Theory Seminar	Sep. 2018
University of California, Los Angeles, String Theory Seminar	Nov. 2017
Johns Hopkins University, Theoretical Particle Physics Seminar	Feb. 2017

**TEACHING  
EXPERIENCE****INSTRUCTOR OF RECORD AT VASSAR COLLEGE**

Course: Symmetry in Physics (PHYS 375)

Spring 2025

Course: Introduction to Statistical Mechanics &amp; Thermodynamics (PHYS 245) Spring 2025

Course: Modern Physics (PHYS 200)

Fall 2024

**INSTRUCTOR OF RECORD AT UCSD**

Summer 2017

Course: Modern Physics (Physics 2D)

- 85.7% of students indicated on evaluations that they recommend me as an instructor.
- Citation from Excellent Teaching Award report, on student evaluations:  
“The response to the statement “I learned a great deal in this course” resulted in a higher score than all but one of the 25 Senate-faculty instances over the last decade.”

*Developed supplementary videos for Physics 2D*

Winter 2016

- Selected to create 20 problem-solving videos using Learning Glass technology.
- Chose, developed, and executed all problems for production, and prepared supplementary solution sets.
- Videos available at: <https://iti.ucsd.edu/PHYS2/PHYS2D/index.html>.

**TEACHING ASSISTANT AT UCSD**

- For each applicable course, between 87.3% and 100% of students indicated on student evaluations that they recommend me as a teaching assistant.

Course: Modern Physics (Physics 2D)

Spring 2017

Course: Waves, Optics &amp; Special Relativity (Physics 4D)

Winter 2017

Course: Graduate Classical Mechanics I (Physics 200A)

Fall 2015

Course: Advanced Classical Mechanics (Physics 110A)

Fall 2015

Course: Waves, Optics &amp; Special Relativity (Physics 4D)

Winter 2015

Course: Mechanics &amp; Electrostatics Lab (Physics 2BL)

Spring 2014

Course: Classical Mechanics (Physics 1A)

Winter 2014

Course: Classical Mechanics Lab (Physics 1AL)

Fall 2013

**OUTREACH***Vassar Science Scholars Presentation*

Feb. 2025

- Taught Poughkeepsie High School students about the weirdness of Quantum Physics.

*The World of Mathematical Sciences, Conference at IPMU*

Aug. 2023

- Presentation at conference for female students and researchers in Japan.

*Aspen Science Center’s Jane and Bill Frazer Physics Cafe*

Feb. 2022

- Public presentation and interview to increase public awareness and understanding of science, hosted by Aspen Center for Physics.

**VOLUNTEER PRESENTATIONS**

- Gave talks to students about my path to becoming a physicist.
- Interacted with students and explained my research at their level of understanding.

Presentation Title: *My Path to Physics*

Jan. 2021

St. Christopher Parish School, West Covina, CA

Presentation Title: *On the Road to Science*

Feb. 2017

Northbrook Junior High, Northbrook, IL

Presentation Title: *Perspectives on Particle Physics*  
Del Norte High School, San Diego, CA

Nov. 2015

Presentation Title: *Modern Particle Physics*  
Young Physicists Program, University of California, San Diego, CA

Oct. 2014

Presentation Title: *Asking and Answering the Big Questions*  
Providence High School, Burbank, CA

Sep. 2014

Presentation Title: *Why Study Physics?*  
Holy Trinity Elementary School, Los Angeles, CA

Sep. 2014

Presentation Title: *Black Holes for 8th Graders*  
St. Robert Bellarmine Elementary School, Burbank, CA

Dec. 2013

<b>PROFESSIONAL ACTIVITIES &amp; COMMUNITY</b>		
	Co-founder, Vassar Mathematical Physics Reading Club	2025-
	Founder & Organizer, IPMU Noninvertible Symmetries Journal Club	2022 - 2023
	Journal Referee (Invited) • SciPost, Physical Review D, JHEP	2022-
	Organizer, Kavli IPMU String Theory Seminar	2022 - 2023
	Organizer, Kavli IPMU Women's Lunch	2021 - 2023
	Organizer, UCLA Theoretical Elementary Particle Physics Seminar	2020 - 2021
	Participant, UCLA DiversiTea Journal Club on Diversity, Equity, and Inclusion	2020
	Organizer, UCSD High Energy Physics Journal Club	2017 - 2018
	Representative, UCSD Physics 1 & 2 Series Task Force • Prepared recommendations to the Physics Department for restructuring the Physics 1 and 2 Series undergraduate courses.	2017 - 2018
	Co-chair (Elected Position), UCSD Physics Graduate Council • Organized regular meetings with the Physics administration, and organized department-wide social activities.	2014 - 2018
	Organizer, Mentoring Women in Physics, UCSD • Organized a department-wide mentoring program which paired graduate women with undergraduate women in Physics, and planned mentoring activities.	2018
	Representative, UCSD Education Policy Committee • Served on faculty committee as student representative. • Prepared recommendations for restructuring the Physics graduate qualifying exam, which were subsequently implemented by the department.	2015 - 2016
	Representative, UCSD Outreach and Diversity Committee • Served on faculty committee as student representative.	2014 - 2015

	Representative (Elected Position), UCSD Graduate Student Association	2014 - 2015
<b>SUMMER SCHOOLS</b>		
	<i>QFT and Geometry Summer School (Invited Panelist; virtual)</i>	Jul. 2020
	• Presented regarding new advances in geometric engineering.	
	<i>Theoretical Advanced Study Institute (TASI)</i>	Jun. 2015
	• Attended theoretical physics summer school on “New Frontiers in Fields and Strings” at CU Boulder.	
	<i>Prospects in Theoretical Physics (PiTP)</i>	Jun. 2014
	• Attended theoretical physics summer school on string theory at the Institute of Advanced Study, Princeton.	