# Mark Trodden

Associate Dean for the Natural Sciences Fay R. and Eugene L. Langberg Professor of Physics Co-Director: Center for Particle Cosmology Department of Physics and Astronomy University of Pennsylvania 116 College Hall 4N4A David Rittenhouse Laboratory University of Pennsylvania Philadelphia, PA. 19104 215.898.7938 trodden@upenn.edu

### **Current Positions**

2023 – present	Associate Dean for the Natural Sciences, School of Arts and Sciences,
	University of Pennsylvania.
2009 – present	Fay R. and Eugene L. Langberg Endowed Chair in Physics.
2009 – present	Professor of Physics and Astronomy;
•	Co-Director: Center for Particle Cosmology, University of Pennsylvania.

# **Past Professional Appointments**

2014 – 2022 2007 – 2009	Chair, Department of Physics and Astronomy, University of Pennsylvania. Alumni Professor of Physics, Syracuse University;
	Professor, Physics Department, Syracuse University.
2005 – 2007	Alumni Associate Professor of Physics, Syracuse University.
2004 – 2007	Associate Professor, Physics Department, Syracuse University.
2000 – 2004	Assistant Professor, Physics Department, Syracuse University.
1999 – 2000	Visiting Assistant Professor, Case Western Reserve University.
1997 – 1999	Senior Research Associate, Case Western Reserve University.
1995 – 1997	Research Associate, Massachusetts Institute of Technology.

## **Education**

1995	Ph.D., Physics, Brown University.
1993	M.Sc., Physics, Brown University.
1993	M.A. (honors), Mathematics, Cambridge University, U.K.
1991	Cert. Adv. Stud. (honors), Mathematics, Cambridge University, U.K.
1990	B.A. (honors), Mathematics, Cambridge University, U.K.

## **Selected Honors and Awards**

2015	Fellow, American Association for the Advancement of Science (AAAS).
2015	Fellow, American Physical Society (APS).
2012	Fellow, Institute of Physics (IoP), UK.
2005 – 2008	Kavli Frontiers Fellow, National Academy of Sciences (NAS).
2005 – 2007	Sir Thomas Lyle Fellow, University of Melbourne, Australia.
2003 – 2006	Cottrell Scholar, Research Corporation.
2006	Science and Technology Outreach Award, TACNY.

## **Recent Academic Service Positions**

2015 – 2016	Chair, SAS Committee on Tenure and Promotion Policies.
2013 – 2014	Chair, SAS Personnel Committee.
2013 – 2014	Member, SAS Personnel Committee.
2011 – 2014	Member, SAS Planning and Priorities Committee.
2011 – 2013	Member, SAS Communications Committee.
2018 – 2021	Member, University Council Committee on Campus and Community Life.

## **Professional Activities and Editorial Boards**

2023 - present	Member, Committee on Science And the Arts, The Franklin Institute.
2023 – present	Member, Scientific Advisory Board, Mathematical and Physical Sciences,
	Simons Foundation.
2023	Member, External Review Committee, CMU Physics Department.
2022 – present	Member, Nominating Committee, Division of Gravitational Physics
	(DGRAV), American Physical Society.
2017 – 2020	Member, Advisory Board, Kavli Institute for Theoretical Physics.
2016 – 2019	Member, U.S. High Energy Physics Advisory Panel (HEPAP).
2018	Member, External Review Committee, Ohio State Physics Department.
2017 – 2020	Member, Judging committee, Buchalter Cosmology Prize.
2016	Member, U.S. Department of Energy, High Energy Physics Committee of
	Visitors.
2013 – 2016	Member, Fermi Research Alliance Visiting Committee, Fermilab.
2009 – 2024	Member, Editorial Board – <i>Physics Letters B</i> .
2010 – present	Member, Editorial Board – Journal of Cosmology and Astroparticle
	Physics.
2016 – 2019	Member, Editorial Board – Physical Review D.
2006 – 2014	Member, Editorial Board – New Journal of Physics.
2017 – 2022	Member, Editorial Advisory Board – <i>Universe</i> .
2007 – present	Member, Editorial Board – Multiversal Journeys.
2006 – 2008	Member, Editorial Board – The Gravitational Lens.
2000 – present	Grant Reviewing: National Science Foundation (NSF); Department of
	Energy (DOE); NASA; National Academy of Sciences (NAS); Simons
	Foundation; UK STFC; Canadian National Research Council; City
	University of New York; Department of Energy Review Panels; National
400=	Science Foundation Review Panels; NASA Review Panels.
1995 – present	Refereeing: Nature; Science; Physical Review Letters; Physical review
	D; Physics Letters B; Journal of High Energy Physics; Journal of
	Cosmology and Astroparticle Physics; Classical and Quantum Gravity;
	International Journal of Modern Physics.

# Mentoring

Ph.D. students (10) Mary Gerhardinger (Ph.D. expected 2027); Brandon Khek (Ph.D. expected 2028); Qiuyue Liang (Ph.D. 2023, postdoc - KIPMU); Mariana Carrillo Gonzalez (Ph.D. 2020, postdoc - Imperial College); James Stokes

(Ph.D. 2015, Research Scientist - Flatiron Institute); Garrett Goon (Ph.D. 2014, Machine Learning - Determined AI); Melinda Andrews (Ph.D. 2014); Michele Fontanini (Ph.D. 2011, Research Scientist - Italy); Eric West (Ph.D. 2010, faculty - Minnesota); Alessandra Silvestri (Ph.D. 2008, tenured - Leiden); Antonio de Felice (Ph.D 2006, tenured - Kyoto).

## Postdocs (15)

Valerio de Luca (current); Alice Garroffolo (current); Meng-Xiang Lin (current); Sam Wong (faculty - Hong Kong); Tanvi Karwal (postdoc - Chicago); Marco Raveri (faculty - Genoa); Jeremy Sakstein (faculty - Hawaii); Riccardo Penco (faculty - CMU); Vivian Miranda (faculty - Stony Brook); Lasha Berezhiani (faculty - Munich); Yi-Zhen Chu (faculty - NCUT Taiwan); Kurt Hinterbichler (tenured - CWRU); Daniel Wesley (partner - PDT Partners); Damien Easson (tenured - ASU); Levon Pogosian (tenured - Simon Fraser); Laura Mersini (tenured - UNC).

### **Publications**

I have published over 170 peer-reviewed and other research papers. All of these, plus relevant citation metrics, can be found at <a href="https://inspirehep.net/authors/985627">https://inspirehep.net/authors/985627</a>

#### **Presentations**

I have routinely delivered ten or more invited seminars, colloquia and conference presentations per year for the last decade. Recent notable talks include the Schrodinger Colloquium in Zurich, and the Lorentz Colloquium in Leiden.