

Mariel Pettee

mariel.pettee@yale.edu

Physics PhD Candidate at Yale University

Education

2015 - Present	YALE UNIVERSITY PhD in Physics (Expected 2021)	New Haven, CT
2015	UNIVERSITY OF CAMBRIDGE • Trinity College MASt in Physics, Commendable Performance	Cambridge, UK
2014	HARVARD UNIVERSITY AB in Physics and Mathematics, Cum Laude, High Honors in Field Dramatic Arts Secondary	Cambridge, MA

Research

2017 - Present	ATLAS EXPERIMENT $VH \rightarrow \tau\tau$ Search Prof. Sarah Demers	CERN
2017 - Present	ATLAS EXPERIMENT Tau Identification with Recurrent Neural Networks in the ATLAS Trigger Prof. Sarah Demers	CERN
2015 - 2016	MUZE EXPERIMENT Trigger & TDAQ Studies for the Muze Experiment Prof. Sarah Demers	Fermilab
2012	ATLAS EXPERIMENT Improving K-factor Estimations for NNLO Higgs to bb Interactions Prof. John Huth, Dr. David Lopez Mateos	CERN
2011	HARVARD-SMITHSONIAN CENTER FOR ASTROPHYSICS Reconstructing the Baryon Acoustic Oscillatory Peak Dr. Daniel Eisenstein	Cambridge, MA

Awards

2018	Women's Faculty Forum Seed Grant
2016	Winner, Windy City Physics Slam Poster Award, <i>Trigger Studies for the Muze Experiment</i> , ICHEP
2015	Honorable Mention, NSF Graduate Research Fellowship Program Leigh Page Prize, Yale University
2014	Harvard-Cambridge Scholarship Julia Shaffner Memorial Prize (Outstanding Woman in Science), Harvard University
2013	Finalist, The Harvard Innovation Lab President's Challenge 15 Most Interesting Seniors, <i>The Harvard Crimson</i>
2012	Harvard University Certificate of Distinction in Teaching The Caroline Isenberg and Elizabeth Cary Agassiz Fellowships

Teaching

TRAINING

- 2016 Physics 530: Theory and Practice of Scientific Teaching for Physical Scientists, *Yale University*
2014 Astro 302: Scientists Teaching Science, *Harvard University*

YALE UNIVERSITY

- 2017 Physics 171: University Physics for the Life Sciences
Physics 115: The Physics of Dance
2016 Physics 205L: Modern Physical Measurement
Physics 115: The Physics of Dance
2015 Physics 165L: General Physics Laboratory

HARVARD UNIVERSITY

- 2013 Math 110: Vector Space Methods for Differential Equations
2012 & 2013 Math 121: Linear Algebra and Applications

Talks

- 2018 Tau Trigger & CP Performance at High μ , *ATLAS P&P Physics Plenary*
FTK & the Tau Trigger, *ATLAS TDAQ Week*

Arts

YALE UNIVERSITY

- 2018 Paul Taylor Dance Company Intensive, *Yale Dance Theater*
2017 Choreographer: “La Mort du Chorégraphe”, *A Different Drum Dance Company*
→ Ongoing Research in AI-Generated Choreography
Urban Bush Women Intensive, *Yale Dance Theater*
2016 Gaga Intensive with Saar Harari & Lee Sher, *Yale Dance Theater*
Choreographer: “Rang Cherries”, *A Different Drum Dance Company*

HARVARD UNIVERSITY

- 2014 Director/Writer/Choreographer: *Symmetry Breaking*
→ My creative physics thesis project: an experimental multimedia performance
President, *The Signet Society of Arts & Letters*
Choreographer-in-Residence, *Harvard Dance Center*
2013 Arts@CERN Internship
2012 The International Student Drama Festival Judges’ Award for Acting
Vice-President & Mainstage Coordinator, *The Harvard-Radcliffe Dramatic Club*
→ 35+ productions as a performer, director, producer, designer, & choreographer
Director: *for the purpose of catching ourselves in the act of being the most*
→ Set the Guinness World Record for the longest telephone conversation between two people
2011 Harvard Theater Award for Best Lead Actress in a Play
Co-founder and collaborator, *The Harvard Generalist*
Drama & Dance Proctor, *Freshman Arts Program* (2011-2014)

Service & Outreach

2015 - Present	Yale Women in Physics Mentor Girls' Science Investigations at Yale
2017 - 2018	Speaker, <i>Science in the News</i> , delivering scientific talks to the New Haven public
2016	Winner, Windy City Physics Slam Choreographer: <i>Form Factors</i> , a dance intervention with physicists at ICHEP