Adrienne M. Propp

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Education

UNIVERSITY of OXFORD Oxford, United Kingdom
MSc in Mathematical Modelling and Scientific Computing November 2018

HARVARD UNIVERSITY Cambridge, MA
Bachelor of Arts in Applied Mathematics; Magna Cum Laude May 2017
Focus in Physics & Chemistry; GPA: 3.89 Major, 3.83 Overall
Harvard College Scholar (top 10% of class)

Experience

Technical Analyst I, RAND Corporation Jan 2019 – Present

Research – Wofsy Lab, Harvard University Dept. of Earth & Planetary Sciences Jan 2016 – Sep 2017

- Conducted Observation System Simulation Experiments (OSSEs) using Python and Odyssey (Harvard's supercomputer cluster) to quantify a proposed satellite's ability to constrain methane emissions
- Propp, A.M. et al. (2017), MethaneSat: Detecting Methane Emissions in the Barnett Shale Region, Abstract [A32D-U6] presented at 2017 Fall Meeting, AGU, New Orleans. LA. 11-15 Dec.

Teaching Fellow for Harvard University Dept. of Applied Mathematics Aug 2015 – Dec 2017

- Teaching Fellow for a multivariable calculus class (AM21a) and differential equations class (AM105)
- Two-time recipient of Certificate of Distinction in Teaching by Derek Bok Center for Teaching and Learning

SULI Intern for Department of Energy – SLAC National Accelerator Laboratory and Lawrence Livermore National Laboratory June 2015 – Aug 2015

- Experimental campaign at LLNL's Jupiter Laser Facility to investigate new regimes of ion acceleration
- Assisted in development of a cryogenic hydrogen microjet, a novel target for laser-plasma interaction
- Managed ion spectrometers and radiochromic film diagnostics to analyze results of experimental trials
- Presented findings at 3rd High-Power Laser Workshop at SLAC in October 2016

Publications in AIP Review of Scientific Instruments

- Gauthier, M. et al. [including Propp, A] (2016). "High intensity laser-accelerated ion beam produced from cryogenic micro-jet target".
- Chen, S. N. et al. [including Propp, A] (2016). "Absolute dosimetric characterization of Gafchromic EBT3 and HDv2 films using commercial flat-bed scanners and evaluation of the scanner response function variability".

Patent No. 9032637 for Hanging Jig June 2012 – Present

- Device to hang artwork on two foci to ensure straightness

Leadership and Activities

Corpus Christi College Women's Football Club Sep 2017 – Sep 2018
Harvard-Radcliffe Modern Dance Company Jan 2014 – Dec 2016
Treasurer & Financial Adviser, Communications Director

Harvard Chapter of Engineers Without Borders (EWB) Aug 2013 – Dec 2016

- Researched & implemented water purification methods for a well in Pinalito, Dominican Republic

Skills

Technical: Python, R, C, MATLAB, Mathematica, some experience with AMPL, PHP, SQL, JavaScript, & CSS
Language: French
Interests: Hiking, travel, running, dance, painting, pottery, rock climbing