

DEAN LAHANA

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📍 Stanford, CA

EDUCATION

Stanford University

Stanford, CA

Ph.D. Candidate in Theoretical Chemistry

June 2019 - Present

CUNY City College

New York, NY

B.S. in Chemistry, Magna Cum Laude

June 2015 - May 2019

CUNY Queens College

Fresh Meadows, NY

B.A. in Economics

September 2011 - May 2015

RESEARCH EXPERIENCE

Stanford University

Advisor: Todd Martínez

Developing conical intersection optimizer for the TeraChem quantum chemistry software package. Studying non-adiabatic molecular dynamics and identifying chemical motifs that influence internal conversion as well as dissociation dynamics in photochemistry. Assistant system administrator for HPC cluster consisting of over 100 nodes and 300 GPUs.

June 2019 - Present

CUNY City College

Advisor: Ed Hohenstein

Studied substituent effects in the non-adiabatic dynamics of photostabilizers.

May 2017 - May 2019

CUNY City College

Advisor: Dorthé Eisele

Prepared and characterized samples of self-assembling macromolecular structures.

September 2016 - May 2017

TEACHING EXPERIENCE

Stanford University

Teaching Assistant - Thermodynamics

Teaching Assistant - Statistical Mechanics

Teaching Assistant - Quantum Mechanics

April 2020 - June 2020

January 2020 - March 2020

September 2019 - December 2019

CUNY City College

Teaching Assistant - Analytical Chemistry

January 2019 - May 2019

Columbia University - CCNY Nano Program

Laboratory Instructor and Research Mentor

Summer and Winter, 2018 - 2019

Regeneron Science Talent Search

Assistant Research Mentor

May 2018 - December 2018

PUBLICATIONS AND PRESENTATIONS

Exploring Excited States in Virtual Reality with Ab Initio Interactive Molecular Dynamics, Stefan Seritan, Yuanheng Wang, Jason E. Ford, **Dean Lahana**, Alessio Valentini, and Todd J. Martínez, *J. Chem. Theory Comp.* (2022) 18 (6), 3308-3317

The Non-Adiabatic Nanoreactor: Towards the Automated Discovery of Photochemistry, Elisa Pieri, **Dean Lahana**, Alexander M. Chang, Cody R. Aldaz, Keiran C. Thompson, and Todd J. Martínez, *Chem. Sci.* (cover) (2021), 12, 7294

Performance of Coupled-Cluster Singles and Doubles on Modern Stream Processing Architectures, B. Scott Fales, Ethan R. Curtis, K. Grace Johnson, **Dean Lahana**, Stefan Seritan, Yuanheng Wang, Hayley Weir, Todd J. Martínez, and Edward G. Hohenstein, *J. Chem. Theory. Comp.* (2020), 16, 4021-4028

Substituent Effects on the Excited-State Dynamics of Benzotriazole Photostabilizers, **Dean Lahana**, Edward G. Hohenstein, and Todd J. Martínez, *In preparation*

American Conference of Theoretical Chemistry (ACTC) Conference, Poster July 2022
Dean Lahana, Brandon C. Wada, Nanna H. List, Todd J. Martínez, *Competing Internal Conversion Pathways in 2-Bromothiophene*

Bay Area Theoretical Chemistry (BATChem) Conference, Poster June 2021
Dean Lahana, Ed Hohenstein, Todd J. Martínez *Substituent Effects on the Excited-State Dynamics of Benzotriazole Photostabilizers*

Virtual Conference of Theoretical Chemistry, Poster July 2020
Dean Lahana, B. Scott Fales, Ed Hohenstein, and Todd Martinez, *Advances in Conical Intersection Optimization Methods*

CUNY City College Chemistry Honors Research Symposium, Presentation November 2018
Dean Lahana and Ed Hohenstein, *Substituent Effects on the Excited-State Dynamics of Benzotriazole Photostabilizers*

CUNY City College Academy of Professional Preparation Annual Poster Presentation, Poster November 2018
Dean Lahana and Ed Hohenstein, *Substituent Effects on Photostabilizer Dynamics*

FELLOWSHIPS AND AWARDS

Honorable Mention, NSF Graduate Research Fellowship Program - 2020
EDGE Doctoral Fellowship, Stanford University - 2019
Jerome Karle Award for Physical Chemistry, CUNY City College - 2019

ACTIVITIES AND PROFESSIONAL ORGANIZATIONS

Alternative Protein Fundamentals Programme - Good Food Institute x Effective Altruism Cambridge
12 week program to survey the scientific, technical, and sociopolitical challenges facing the alternative protein industry, terminating with a capstone project

WORK EXPERIENCE

Guitar Center *September 2012 - April 2017*
Instrument Repair Technician, Department Manager, and Sales Associate

TECHNICAL SKILLS

Programming:	C/C++/CUDA, Python, MATLAB, bash
Software & Tools:	Linux, Quantum chemistry software
Musical Instrument Repair:	Soldering, woodworking, multiple hand tools and shop tools