KATHERINE M. DAVIS

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EDUCATION

2014 **Ph.D. Physics**
Purdue University, West Lafayette, IN

2009 **B.S. Physics & Mathematics** (Summa Cum Laude)
Minor in French
University of Louisville, Louisville, KY

ACADEMIC POSITIONS

2020 – **Emory University**, Atlanta, GA
Assistant Professor, Department of Chemistry

Affiliated Member: Department of Physics Graduate Program

2016 – 2019 **Princeton University**, Princeton, NJ
Department of Chemistry
Advisor: Prof. John T. Groves

The Pennsylvania State University, State College, PA
Department of Chemistry
Co-advisor: Prof. Amie Boal

Project: Structure and mechanism of iron-containing enzymes and biomimetic complexes

2014 – 2016 **Princeton University**, Princeton, NJ
Department of Chemistry
Advisor: Prof. Nozomi Ando

Project: X-ray structural methods to study radical SAM enzymes

2009 – 2014 **Purdue University**, West Lafayette, IN
Graduate Student, Department of Physics and Astronomy
Advisor: Prof. Yulia Pushkar

Thesis: Oxidation state and local structure of the photosynthetic Mn_4Ca catalytic cluster revealed via time-resolved x-ray spectroscopy

2008 – 2009 **University of California Irvine**, Irvine, CA
Undergraduate Research Assistant through NSF REU program
Department of Earth System Science
Advisor: Prof. Todd K. Dupont

Undergraduate Thesis (completed at the University of Louisville): Control methods and inversion techniques to determine ice stream basal friction fields

2007 **University of Louisville**, Louisville, KY
Department of Physics and Astronomy
Advisors: Dr. Lutz G Haberzettl, and Prof. Gerard M. Williger

Project: Data reduction of near-IR images in the Clowes-Campusano large quasar group

HONORS & MEMBERSHIPS

Honors

2022	ESI MIRA Award (R35)
2021	Beckman Young Investigator Award
2018	NIH Pathway to Independence Award (K99/R00)
2015 – 2018	Arnold O. Beckman Postdoctoral Fellowship
2014	Humboldt Postdoctoral Research Fellowship (awarded, but declined)
2012	Lijuan Wang Memorial Award – outstanding female graduate student (Purdue)
2011 – 2014	National Science Foundation Graduate Research Fellowship
2009 – 2011	Purdue Doctoral Fellowship
2009	Bennett Award in Physics – awarded to an outstanding senior in physics (U of L)
2008	Sigma Pi Sigma Physics Honors Society (U of L)
2007	Bullitt Award in Mathematics – awarded to the most promising math major (U of L)
2007	Pi Mu Epsilon Mathematics Honors Society (U of L)
2005 – 2009	Grawemeyer Scholarship (U of L)

Memberships

2018 –	American Society for Biochemistry and Molecular Biology
2017 –	American Chemical Society
2009 – 2014	Women in Physics (WIP), Purdue University
2009 – 2014	Women in Science Programs (WISP), Purdue University
2007 –	American Physical Society

RESEARCH SUPPORT

(role of PI unless otherwise indicated)

Ongoing

2022 – 2027	ESI MIRA Award ($1,657,540)
2021 – 2025	Beckman Young Investigator Award ($600,000)
2020 – 2023	NIH Pathway to Independence Award (R00, $747,000)

Completed

2015 – 2018	Arnold O. Beckman Postdoctoral Fellowship
2011 – 2014	National Science Foundation Graduate Research Fellowship

Pending

2022	NIH R01 (role: Co-investigator)
2022	NSF REU (role: key personnel)
2022	BDCI T32 (role: key personnel)
2022	IMSD T32 (role: key personnel)
2022	MARC T34 (role: key personnel)

PUBLICATIONS

30. Wang, Y.; McWhorter, K. L.; Amayz Lopez, C.; **Davis, K. M.***; Seyedsayamdost, M. R.* Unique inhibition mechanism of GTP cyclohydrolase FolE2. **(in preparation)**.

29. Hauser, N.; Ireland, K. A.; Chioti, V.; **Davis, K. M.***; Seyedsayamdost, M. R.* Biochemical and structural characterization of OxyB, a cytochrome P450 enzyme in the keratinimicin biosynthetic pathway. **(in preparation)**.

28. Emamian, S.; Ireland, K. A.†; Purohit, V.†; Maximova, O.; Allen, W.; McWhorter, K. L.; Jensen, S.; Casa, D. M.; Bury, G.; Pushkar, Y. N.*; **Davis, K. M.*** X-ray Emission Spectroscopy of Single Protein Crystals Yields Insights into Heme Enzyme Intermediates. *J. Phys. Chem. Lett*. **2023**, 1, 41-48.

27. Braffman, N. R.†; Ruskoski, T. B.†; **Davis, K. M.**; Glasser, N.; Johnsona, C.; Okaforb, C. D.; Boal, A. K.; Balskus, E. P. Structural Basis for an Unprecedented Enzymatic Alkylation in Cylindrocyclophane Biosynthesis. *eLife*. **2022**, 11:e75761.

26. Horwitz, S. M.; Blue, T. C.; Ambarian, J. A.; Hoshino, S.; Seyedsayamdost, M. R.; **Davis, K. M.*** Structural Insights into Inhibition of the Drug Target Dihydroorotate Dehydrogenase by Bacterial Hydroxyalkylquinolines. *RSC Chem. Biol*. **2022**, 3, 420-425.

25. Lau, S. H.; Chen, L.; Kevlishvili, I.; **Davis, K. M.**; Liu, P.; Carrow, B. P. Capturing the Most Active State of a Palladium(0) Cross-Coupling Catalyst. *ChemRxiv*. **2021**. Preprint. https://doi.org/10.26434/chemrxiv-2021-477kn.

24. Chioti, V. T. †; McWhorter, K. L.†; Blue, T. C.; Xu, F.; Jeffrey, P. D.; **Davis, K. M.***; Seyedsayamdost, M. R.* Structural and Functional Analysis of Keratinicyclin Reveals Synergistic Antibiosis with Vancomycin against Clostridium difficile. *ChemRxiv*. **2021**. Preprint. https://doi.org/10.26434/chemrxiv.14668545.

23. Blue, T. C. & **Davis, K. M.*** Computational Approaches: An Underutilized Tool in the Quest to Elucidate Radical SAM Dynamics. *Molecules*. **2021**, 26, 2590.

22. Copeland, R. A.; **Davis, K. M.**; Shoda, T. K. C.; Blaesi, E. J.; Boal, A. K.; Krebs, C.; Bollinger, Jr., J. M. An Iron(IV)-oxo Intermediate Initiating L-Arginine Oxidation but not Ethylene Production by the 2-Oxoglutarate-Dependent Ethylene-Forming Enzyme (EFE). *J. Am. Chem. Soc.* **2021**, 143, 2293–2303.

21. Gallant, E.; Li, A.; **Davis, K. M.**; Syedsayamdost, M. R. *Burkholderia*-Derived Natural Products: From Discovery to Target Identification Toward Chemical Ecology. *Invited Book Chapter Submission: "Comprehensive Natural Products III"* Edited by Tadhg Begley and Ben Liu. *Elsevier,* pg. 121–141 (**2020**).

20. Seyedsayamdost, M. R.; Caruso, A.; **Davis, K. M.** The Chemistry and Structural Enzymology of RiPP-Modifying Radical SAM Metalloenzymes. *Invited Book Chapter Submission: "Comprehensive Natural Products III"* Edited by Tadhg Begley and Ben Liu. *Elsevier,* pg. 49–64 (**2020**).

19. Zhou, S.; Pan, J.; **Davis, K. M.**; Schaperdoth, I.; Boal, A. K.; Krebs, C.; Bollinger, Jr., J. M. Steric Enforcement of Cis-Epoxide Formation in the Radical C–O Coupling Reaction by which (S)-2-Hydroxypropylphosphonate Epoxidase (HppE) Produces Fosfomycin. *J. Am. Chem. Soc*. **2019**, *141*, 20397-20406.

18. **Davis K. M.**; Altmyer M.; Martinie, R. J.; Schaperdoth, I.; Krebs, C.; Bollinger Jr., M. J.; Boal, A. K. Structure of a Ferryl Mimic in the Archetypal Iron(II)- and 2-(Oxo)-glutarate-Dependent Dioxygenase, TauD. *Biochemistry*. **2019**, *58*, 4218-4223.

17. Nelp, M. T.; Zhang, V.; **Davis, K. M.**; Stiefel, K.; Groves, J. T. Potent Activation of Indoleamine 2,3-Dioxygenase by Polysulfides. *J. Am. Chem. Soc*. **2019**, *141*, 15288-15300.

16. Rose, H. R.; Maggiolo, A. O.; Mcbride, M.; Palowitch, G. M.; Pandelia, M. E.; **Davis, K. M.**; Yennawar, N. H.; Boal, A. K. Structures of Class Id Ribonucleotide Reductase Catalytic Subunits Reveal a Minimal Architecture for Deoxynucleotide Biosynthesis. *Biochemistry*. **2019**, *58*, 1845-1860.

15. Xu, F.; Wu, Y.; Zhang, C.; **Davis, K. M.**; Moon K.; Bushin, L. B.; Seyedsayamdost, M. R. A Genetics-Free Method for High-Throughput Discovery of Cryptic Microbial Metabolites. *Nat. Chem. Bio.* **2019**, *15*, 161-168.

14. **Davis, K. M.**; Sullivan, B.T.; Palenik, M. C.; Yan, L.; Purohit, V.; Robison G.; Kosheleva, I.; Henning R. W.; Seidler, G. T.; Pushkar, Y. N. Rapid Evolution of the Photosystem II Electronic Structure During Water Splitting. *Phys. Rev. X* **2018**, *8*, 041014.

- Highlighted in "Pinning down the Chemistry of Photosynthetic Water Splitting." (APS *Physics* – October 23, 2018)

13. Pushkar, Y.; **Davis, K. M.**; Palenik, M. C. Model of the Oxygen Evolving Complex Which is Highly Predisposed to O–O Bond Formation. *J. Phys. Chem. Lett.* **2018**, *9*, 3525-3531.

12. **Davis, K. M.**; Schramma, K. R.; Hansen, W. A.; Bacik, J. P.; Khare, S. D.; Seyedsayamdost, M. R.; Ando, N. Structures of the Peptide-Modifying Radical SAM Enzyme SuiB Elucidate the Basis of Substrate Recognition, *P. Natl. Acad. Sci. USA.* **2017**, *114*, 10420-10425.

11. **Davis, K. M.** & Boal, A. K. Chapter Eleven - Mechanism-Based Strategies for Structural Characterization of Radical SAM Reaction Intermediates, In *Methods Enzymol.* (David, S. S., Ed.), **2017**, pp 331-359, Academic Press.

10. Jensen, S. C.; **Davis, K. M.**; Sullivan, B.; Hartzler, D. A.; Seidler, G. T.; Casa, D. M.; Kasman, E.; Colmer, H. E.; Massie, A. A.; Jackson, T. A.; Pushkar, Y. X-ray Emission Spectroscopy of Biomimetic Mn Coordination Complexes. *J. Phys. Chem. Lett.* **2017**, *8*, 2584-2589.

9. Sullivan, B.; Robison, G.; Osborn, J.; Kay, M.; Thompson, P.; **Davis, K. M.**; Zakharova, T.; Antipova, O.; Pushkar, Y. On the Nature of the Cu-Rich Aggregates in Brain Astrocytes. *Redox Biol.* **2017**, *11*, 231-239.

8. Rustiguel, J. K.; Soares, R. O. S.; Meisburger, S. P.; **Davis, K. M.**; Malzbender, K. L.; Ando, N.; Dias-Baruffi, M,; Nonato, M. C. Full-Length Model of the Human Galectin-4 and Insights into Dynamics of Inter-Domain Communication. *Sci. Rep.* **2016**, *6*, 33633.

7. **Davis, K. M.**; Palenik, M.; Yan, L.; Smith, P. F.; Seidler, G. T.; Dismukes, G. C.; Pushkar, Y. N. X-ray Emission Spectroscopy of Mn Coordination Complexes Toward Interpreting the Electronic Structure of the Oxygen-Evolving Complex of Photosystem II. *J. Phys. Chem. C* **2016**, 120, 3326-3333.

6. **Davis, K. M.** & Pushkar, Y. Structure of the Oxygen Evolving Complex of Photosystem II at Room Temperature. *J. Phys. Chem. B.* **2015**, *119*, 3492-3498.

5. Kupitz, C.; Basu, S.; Grotjohann, I.; Fromme, R.;…**Davis, K. M.** et al. Serial Time-Resolved Crystallography of Photosystem II Using a Femtosecond X-ray Laser. *Nature*. **2014**, *513*, 261-265.

- Highlighted in "Researchers Capture Images of Photosynthesis in Action." (Nature World News – July 10, 2014)

- Highlighted in "Scientists Capture Snapshots of Water Splitting in Photosynthesis for the First Time Ever." (Science World Report – July 10, 2014)

4. **Davis, K. M.**; Kosheleva, I.; Henning, R. W.; Seidler, G. T.; Pushkar, Y. Kinetic Modeling of the X-Ray-Induced Damage to a Metalloprotein. *J. Phys. Chem. B* **2013**, *117*, 9161-9169.

3. Chen, J.; Lee, Y.-M.; **Davis, K. M.**; Wu, X.; Seo, M. S.; Cho, K.-B.; Yoon, H.; Park, Y. J.; Fukuzumi, S.; Pushkar, Y. N.; Nam, W. A Mononuclear Non-Heme Manganese(IV)–Oxo Complex Binding Redox-Inactive Metal Ions. *J. Am. Chem. Soc.* **2013**.

- Highlighted in "Metal model mimics metalloenzymes." (Phys.org – August 12, 2013)

2. **Davis, K. M.**; Mattern, B. A.; Pacold, J. I.; Zakharova, T.; Brewe, D.; Kosheleva, I.; Henning, R. W.; Graber, T. J.; Heald, S. M.; Seidler, G. T.; Pushkar, Y. Fast Detection Allowing Analysis of Metalloprotein Electronic Structure by X-ray Emission Spectroscopy at Room Temperature. *J. Phys. Chem. Lett.* **2012**, *3*, 1858.

1. Wu, X.; Seo, M. S.; **Davis, K. M.**; Lee, Y.-M.; Chen, J.; Cho, K.-B.; Pushkar, Y.; Nam, W. A Highly Reactive Mononuclear Non-Heme Manganese(IV)-Oxo Complex That Can Activate the Strong C-H Bonds of Alkanes. *J. Am. Chem. Soc.* **2011**, *133*, 20088.

PATENT APPLICATIONS

3. Seyedsayamdost, M. R., Chioti V. T., **Davis, K. M.**, McWhorter, K. L. Glycopeptide Antibiotic Combination Therapy Against Clostridia. Provisional Patent Filed 5/25/2021

2. Seyedsayamdost, M. R., Zhang, Y., Chandler, J. R., Klaus, J. R., **Davis, K. M.**, McWhorter, K. L. Antibacterial Combination Therapy to Treat Burkholderia Infections. Provisional Patent Filed 11/10/2020.

1. Seyedsayamdost, M. R.; Xu, F.; Wu, Y.; Bushin, L.; **Davis, K. M.** Cryptic Metabolites and Method for Activating Silent Biosynthetic Gene Clusters in Diverse Microorganisms. *U.S. Provisional Patent No. 62/539,263*, filed July 31, 2017.

INVITED TALKS

Scheduled

2. Invited Talk – 28th Enzyme Mechanisms Conference, Spring 2024.

1. Seminar – Auburn University, Spring 2023.

Presented

23. Seminar – BioTechnology Institute, University of Minnesota (Nov. 10, 2022), "Structural insights into the biosynthesis and bioactivity of natural products."

22. Symposium – Regional Beckman Symposium, Georgia Institute of Technology (Aug. 3, 2022), "X-rays shine light on the synergy between metalloenzyme structure and electronics".

21. Seminar – University of Georgia, Dept. of Chemistry (Feb. 21, 2022), "Structure and dynamics of enzyme-ligand interactions".

20. Symposium – Pacifichem, RiPP Natural Products: Biosynthesis, Function, and Engineering (Dec. 16, 2021), "Structural insights into peptide recognition and modification by RiPP biosynthetic enzymes".

19. Seminar – Emory University, Dept. of Physics (April 28, 2020), "Using X-rays to Probe Protein Dynamics".

18. Honors Colloquium Speaker – University of Louisville, Dept. of Physics and Astronomy (April 5, 2019), "Using X-rays to Probe Protein Dynamics"

17. Seminar – University of Wisconsin, Madison, Dept. of Chemistry (March 7, 2019), "X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

16. Seminar – University of North Carolina, Dept. of Applied Physical Sciences (Feb. 28, 2019), "Using X-rays to Probe Protein Dynamics"

15. Seminar – Carnegie Mellon, Dept. of Physics (Feb. 21, 2019), "Using X-rays to Probe Protein Dynamics"

14. Outreach Seminar – Presentation Academy, Louisville, KY (Feb. 19, 2019), "Girls in Science Go Everywhere"

13. Seminar – University of Kentucky, Dept. of Chemistry (Feb. 14, 2019), **"**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

12. Seminar – University of Florida, Dept. of Physics (Feb. 12, 2019), "Using X-rays to Probe Protein Dynamics"

11. Seminar – University of California, Santa Barbara, Dept. of Chemistry (Jan. 31, 2019), **"**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

10. Seminar – Purdue University, Dept. of Chemistry (Jan. 24, 2019), **"**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

9. Seminar – Emory University, Dept. of Chemistry (Dec. 10, 2018), **"**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

8. Seminar – Columbia University, Dept. of Chemistry (Dec. 7, 2018), **"**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"

7. Seminar – New York University, Dept. of Chemistry (Dec. 3, 2018)**, "**X-rays Illuminate Metalloenzymes: Photosystem II and Radical SAM enzymes"
6. Symposium – American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting, San Diego, CA, (Apr. 24, 2018), "Structural Insights into Peptide Recognition and Modification by the Radical SAM Enzyme SuiB"
5. Seminar – Advanced Photon Source, Argonne National Lab (Mar. 17, 2017), "Structural Characterization of a Novel RiPP-modifying Radical SAM Enzyme"
4. Seminar – Simmons College Department of Physics and Chemistry (Nov. 9, 2015) "Physics, Chemistry and Spinach: Investigating How Plants Split Water"
3. Seminar – University of Louisville Physics Department (Sept. 12, 2014) "X-ray Emission Analysis of the S-state Intermediates of the Photosystem II Protein Complex"
2. Seminar – DESY CFEL, Hamburg, Germany (July 17, 2014) "X-ray Emission Analysis of the S-state Intermediates of the Photosystem II Protein Complex"
1. Symposium – APS User Meeting, Argonne National Lab. (May 12-15, 2014) "X-ray Emission Analysis of the S-state Intermediates of the Photosystem II Protein Complex"

PROFESSIONAL EXPERIENCE

2022	**Managing Bias**, Office of Diversity, Equity, and Inclusion
2022	**Diversity: Inclusion in the Modern Workplace**, Office of Diversity, Equity, and Inclusion
2021	**It's About Flipping Time**, Center for Faculty Development and Excellence (CFDE)
2020	**Emory College Online Teaching Strategies (ECOTS)**
2020	**'Measuring Protein Dynamics…' Workshop**, NSLS-II/CFN Users' Meeting
2020	**Faculty Showcase on Blended and Hybrid Courses**, CFDE
2019	**The PI Crash Course: Skills for Future or New Lab Leaders**, Columbia University
2017	**Structural Bioinformatics Workshop,** EMBL-EBI - Hinxton, Cambridge, UK
2014	**5th BioSAXS Essentials Training Workshop**, CHESS – Cornell University
2013	**Ultrafast X-ray Summer School**, DESY – Hamburg, Germany

SERVICE

External

2023 –	**Reviewer**, ACS Bio & Med Chem Au
2022	**Proposal Reviewer**, NIH Special Emphasis Panel
2022 –	**Reviewer**, Communications Biology
2022 –	**Reviewer**, Biochemistry
2022 –	**Reviewer**, Current Opinions in Chemical Biology
2021 –	**Reviewer**, Nature Communications
2021 –	**Proposal Reviewer,** Advanced Photon Source, Argonne National Lab
2021 –	**Reviewer,** Nature Chemical Biology
2021 –	**Reviewer**, ChemBioChem
2019 – 2021	**Proposal Reviewer,** Arnold and Mabel Beckman Foundation
2013 – 2014	**Secretary,** Forum on Graduate Student Affairs, American Physical Society
2013 – 2014	**Executive Committee**, Physics Graduate Student Association, Purdue University

2008 – 2009	**President**, Society of Physics Students, University of Louisville
2007 – 2008	**President**, Mathematics Club, University of Louisville

Internal

2022 –	**Biomolecular Seminar Program Coordinator**
2022 –	**ARCS Selection Committee**
2022 –	**Dept. of Chemistry Operations Committee**
2022 –	**LGS SOAR Mentor** (2022 mentee declined)
2022 – 2023	**Dept. of Chemistry, Senior Search Committee**
2021 –	**STEM Pathways Faculty Partner**
2021	**Emerson Postdoctoral Fellows Program Committee**
2020 – 2022	**SIRE Program Mentor**
2020 – 2022	**Dept. of Chemistry Graduate Committee**
2020 –	**Thesis Committee Member**, 14 graduate students (*Chemistry*: Tiffany Trieu, Evy Kimbrough, Jessalyn Rogers, Aimee Sanford, Thomas Persinger, Joel Schmitz, Noah Jaffe, Yusha Imtiaz, Amber Scharnow, Martina Golden, Erika Diosdado; Mohamed Husaini Bin Abdul Rahman, Taylor Blackburn; *Physics*: Wei Li)

TEACHING EXPERIENCE

Emory (non-OPUS indicted with asterisk)

2022

Fall
Chem 205 – Light and Matter
*Chem 499R (Joe Ambarian, Ken Dorazio, Evan Nie, Riddhi Jhunjhunwala)

Spring
*Chem 495RW (Nithin Bagal, Sina Djafari-Rouhani)
*Chem 499R (Joe Ambarian, Andrea Mancia)

2021

Fall
Chem 575R – Physical Biochemistry
*Chem 499R (Nithin Bagal, Sina Djafari-Rouhani)
*Chem 399R (Joe Ambarian, Andrea Mancia)

Spring
*Chem 499R (Eray Schulz, Cindy Amaya Lopez, Nithin Bagal)
*Chem 597R (Samantha Horwitz)

2020

Fall
Chem 575R – Physical Biochemistry
*Chem 399R (Nithin Bagal)
*Chem 499R (Eray Schulz, Cindy Amaya Lopez)

Spring
*Chem 399R (Eray Schulz, Cindy Amaya Lopez)
*Chem 597R (Kirklin McWhorter, Stacey Jones)

Pre-Emory

2018 **The Pennsylvania State University**

Teaching Assistant, Penn State Bioinorganic Workshop
Co-taught a hands-on crystallography workshop

2015 **Princeton University**
Guest Lecturer – Biophysical Chemistry I, Department of Chemistry

2013 **Purdue University**
Guest Lecturer – Biophysics II, Department of Physics and Astronomy

2008 – 2009 **University of Louisville**
Teaching Assistant – Mechanics, Heat, and Sound Lab, Dept. of Physics and Astronomy

2007 – 2009 **University of Louisville**, Resources for Academic Achievement Center
Physics and Mathematics Tutor
Introductory courses through differential equations/modern physics

2007 – 2009 **University of Louisville**, Resources for Academic Achievement Center
Supplemental Lecturer for Introductory Physics Courses
Introduction to Mechanics & Introduction to Electricity and Magnetism

2007 – 2008 **University of Louisville**
Grader for Linear Algebra, Department of Mathematics

MENTORING & ADVISING

Emory

Current Group Members

Chemistry Graduate Students

Tamra Blue	*Honorable Mention – 2021 Ford Fndn. Predoctoral Fellowship*
Kirklin McWhorter	
Stacey Jones	*2021 NSF Graduate Research Fellowship*
Kendra Ireland	*2021 NSF Graduate Research Fellowship*
Samantha Horwitz	*2022 NSF Graduate Research Fellowship*
Benjamin Dratch	
Lidia Waidmann	
Gabe DeLong	

Physics Graduate Students

Sahand Emamian

Undergraduate Students

Joe Ambarian (c/o 2023)
Ken Dorazio (c/o 2024)
Evan Nie (c/o 2024)
Riddhi Jhunjhunwala (c/o 2025)

Group Alumni

Undergraduate Students

Andrea Mancia (c/o 2024)	
Nithin Bagal (c/o 2022)	Highest honors, current – *PhD student at Princeton University*
Sina Djafari-Rouhani (c/o 2022)	Highest honors, current – *Post-bac Scholar at the Broad Institute*
Cindy Amaya Lopez (c/o 2022)	Current: *Epic Systems Corporation*, plans for med school
Eray Schulz (c/o 2021)	Current: *PhD student at IUPUI*

Visiting Faculty

Prof. C. L. Davis (U. of Louisville)	*Sabbatical 2020-2021* *remote computational work only*, *due to COVID*

High School Students

Will Hammond	*Cancelled due to COVID restrictions*

Physics Graduate Student Rotators

Fall 2020	Hannah Gilbonio

Chemistry Major Advising

2022 –	Jack Timmons, Rea Yoza
2021 –	Peter Liu
2021 – 2022	Marissa Hollingsworth

Pre-major Advising

2022 – 2023	Nate Hu, Katharine Haspel, Jiya Shah, Luke Hibbeln
2021 – 2022	Kearya Tendall, Kaicheng Chen, Dana Catalano, Roja Ayyadurai
2020 – 2021	Dan Kim, Ashley Kim, Shawn Kim, Aditya Kolisetti

Pre-Emory

The Pennsylvania State University (2016 – 2018)

Undergraduate Thesis Mentor – Madison Altmyer, Boal Lab
Project: Structural analysis of iron(II) and 2-(oxo)-glutarate-dependent oxygenases with alternate reactivities

Princeton University (2015 – 2016)

Undergraduate Thesis Mentor – Emily Adler, Ando Lab
Project: Structural characterization of proteins in an antibiotic biosynthesis pathway using small angle x-ray scattering and x-ray crystallography

Purdue University (2010-2014)

Research Mentor, Pushkar Lab
Trained first year graduate students, undergraduates and REU participants in practical and theoretical aspects of laboratory research.