ALEX T. GRIGAS

CURRICULUM VITAE
YALE UNIVERSITY
ALEX.GRIGAS@YALE.EDU

EDUCATION

YALE UNIVERISITY, NEW HAVEN CT | *2018 - 2024*

- Ph.D. in Computational Biology and Bioinformatics, with distinction
- Integrated Graduate Program in Physical and Engineering Biology
    - Training program in the application of physical and engineering approaches to the Life Sciences across length scales
- Thesis: "Investigating the connection between protein folding, polymer collapse and jamming"
- Thesis Adviser: Professor Corey S. O'Hern

PENNSYLVANIA STATE UNIVERISITY, UNIVERSITY PARK PA | *2014 - 2018*

- B.S. in Biochemistry and Molecular Biology with Honors, *Magna cum laude*
- Honors Thesis: "Phospholipid Bilayer Formation on Protocell Models"
- Thesis Adviser: Professor Christine Keating
- B.A. in Philosophy of Mathematics and Science, *Summa cum laude*
- Minor in Chemistry

PUBLICATIONS

A. T. Grigas, Z. Liu, J. A. Logan, M. D. Shattuck, and C. S. O'Hern, "Protein folding as a jamming transition," *Under review* (2024)

A. T. Grigas, A. Fisher, M. D. Shattuck, and C. S. O'Hern, "The connection between polymer collapse and the onset of jamming," *Phys. Rev. E* **109** (2024)

Z. Liu, **A. T. Grigas**, J. Sumner, E. Knab, C. M. Davis, and C. S. O'Hern, "Identifying the minimal set of distance restraints for FRET-assisted protein structural modeling," *to appear in Protein Science* (2024)

J. Sumner, G. Meng, N. Brandt, **A. T. Grigas**, L. Regan, C. S. O'Hern, "Extensive sampling of rigid-body docking methods reveals current shortcomings in protein-protein interaction scoring methods," *Under review* (2024)

A. T. Grigas, Z. Liu, L. Regan, and C. S. O'Hern, "Core packing of well-defined x-ray and NMR structures is the same," *Protein Science* **31** (2022)

A. T. Grigas, Z. Mei, J. D. Treado, Z. A. Levine, L. Regan, and C. S. O'Hern, "Using physical features of protein core packing to distinguish real proteins from decoys," *Protein Science* **29** (2020)

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Z. Mei, J. D. Treado, **A. T. Grigas**, Z. A. Levine, L. Regan, and C. S. O'Hern, "Analyses of protein cores reveal fundamental differences between solution and crystal structures," *Proteins: Structure, Function, Bioinformatics* **88** (2020)

F. P. Cakmak, **A. T. Grigas**, and C. D. Keating, "Lipid vesicle-coated complex coacervates," *Langmuir* **35** (2019)

K. Reiss, U. N. Morzan, **A. T. Grigas**, and V. S. Batista, "Water network dynamics next to the oxygen-evolving complex of photosystem II," *Inorganics* **7** (2019)

CONFERENCE PRESENTATIONS

- Graduate Student Poster – Protein Society Symposium 2023
- Graduate Student Talk – Yale Biophysics Symposium 2023
- Contributed Talk – March Meeting 2023 | American Physical Society
- Invited Talk – Computational Protein Design Network Meeting 2022
- Contributed Talk - March Meeting 2022 | American Physical Society
- Invited Talk - March Meeting 2021 | American Physical Society
- Contributed Talk - 3D-BioInfo 2020 | ELIXIR

TEACHING

O'Hern Group Research Mentorship

- 6 Graduate students
- 2 Postbaccalaureate students
- 5 Yale undergraduate students
- 6 Summer undergraduate students
- 4 High school students

Yale University Teaching Assistant | Avg. 4.4 / 5 on student evaluations

- ENAS 991 / MB&B 591 / MCDB 591 / PHYS 991- Integrated Workshop
  -Fall 2020, Fall 2021
- ENAS 130 - Introduction to Computing for Engineers and Scientists
  -Spring 2021
- MENG 383 - Mechanical Engineering III: Dynamics
  -Summer 2021
- PHYS 523 / PHYS 341 / MB&B 523 / CB&B 523 / ENAS 541 - Biological Physics
  -Spring 2022

AWARDS AND HONORS

- 1st place 5-minute thesis competition | U. S. National Committee for Theoretical and Applied Mechanics | 2024
- Finn Wold and *Protein Science* Young Investigator Travel Award | 2023
- Protein Society Graduate Student Poster Award | 2023

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- Paul Axt Prize – Penn State Schreyer's Honors College | 2018
- Biochemistry and Molecular Biology Outstanding Student | 2018
- Philosophy Department Student Marshal | 2018
- Rodney A. Erickson Discovery Grant | 2017
- The Dotterer Award – Penn State Department of Philosophy | 2016
- Meredith M. Gee Scholarship in Science | *2016*

PROFESSIONAL SOCEITIES

- American Physical Society
- Protein Society
- International Physics of Living Systems Graduate Student Network