



Lauren Simitz

Ph.D. Student in Aeronautics and Astronautics, admitted Autumn 2021

Bio

BIO

Hi there! I'm an aerospace engineer, chemist, and geoscientist striving to both protect our world and advance technologies to explore new ones. Sustainability, teaching, and DEI are just as strong of passions, in and outside of the aerospace sector.

My work in industry (Chevron, SpaceX, Benchmark, Boeing) and academia catalyzed my interest in advancing sustainable, safe propulsion and energy systems. As a Stanford PhD candidate in the Hypersonics, Propulsion, and Energy Laboratory (HyPEL) working under Professor Ronald Hanson, I employ fluid mechanics, heat transfer, and chemical kinetics to experimentally probe combustion behavior.

HONORS AND AWARDS

- School of Engineering Justice, Equity, Diversity, and Inclusion Award, Stanford (June 2024)
- Robert H. Cannon Jr. Fellowship, Stanford (June 2024)
- James and Anna Marie Spilker Award, Stanford (June 2024)
- Community Impact Award, Stanford (May 2023)
- SGF Fellowship, Stanford (March 2021)
- EDGE Fellowship, Stanford (March 2021)
- NSF GRFP Fellowship, National Science Foundation (April 2021)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Vice President, Social, American Institute of Aeronautics & Astronautics (AIAA) Chapter (2022 - present)
- Mentor, Enhancing Diversity in Graduate Education (EDGE) Fellowship (2022 - present)
- President, Women in Aeronautics & Astronautics (WIAA) (2022 - present)

EDUCATION AND CERTIFICATIONS

- M.S., Stanford , Aeronautics & Astronautics (2024)
- B.S., Northwestern University , Chemical & Biological Engineering (2021)
- B.S., Northwestern University , Earth & Planetary Science (2021)
- Certificate, Northwestern University , Design (2021)
- Certificate, UC Berkeley, Haas School of Business , Business Administration (Marketing, Finance, Organizational Behavior) (2018)

PERSONAL INTERESTS

ultimate frisbee, running, hiking, baking, coffee-brewing, reading

Publications

PUBLICATIONS

- **Experimental Measurement of the Rate Coefficient for OCS + M, with M = Ar, He, N₂, CO₂ in a Shock Tube Using Laser Absorption Spectroscopy.** *The journal of physical chemistry. A*
Panda, A., Biswas, P. A., Simitz, L. V., Streicher, J. W., Strand, C. L., Hanson, R. K.
2026
- **Experimental and numerical investigation of flame stabilization and pollutant formation in matrix stabilized ammonia-hydrogen combustion** *COMBUSTION AND FLAME*
Vignat, G., Zirwes, T., Toro, E. R., Younes, K., Boigne, E., Muhunthan, P., Simitz, L., Trimis, D., Ihme, M.
2023; 250
- **Evaluating the Rheo-electric Performance of Aqueous Suspensions of Oxidized Carbon Black.** *Journal of colloid and interface science*
Ramos, P. Z., Call, C. C., Simitz, L. V., Richards, J. J.
2022; 634: 379-387