



Lauren Simitz

- Ph.D. Student in Aeronautics and Astronautics, admitted Autumn 2021
- Masters Student in Aeronautics and Astronautics, admitted Winter 2022

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 and DEI are just as strong of passions at the core of my work, in and outside of the space sector.

More specifically, my work in industry (Chevron, SpaceX, Benchmark) and academic research (Northwestern - flowable batteries, Stanford - clean combustion) catalyzed my passion for advancing sustainable, reliable fuel and energy systems at the micro- and macro-scale. I have interests in propulsion (chemical, air-breathing) and energy conversion processes like combustion. As a Stanford PhD candidate in the Fluids in Complex Environments (Ihme) lab, I employ the intersection of fluid mechanics, heat transfer, and kinetics to probe underlying phenomena in these areas.

I welcome messages and am always seeking collaborations with other scientists/groups. I am also happy to answer any questions about graduate school, fellowships, aerospace/chemical engineering/geoscience, and SpaceX, or put you in touch with my network, if that is helpful.

HONORS AND AWARDS

- 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)
- President, Women in Aeronautics & Astronautics (WIAA) (2022 - present)

EDUCATION AND CERTIFICATIONS

- 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 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