

# Max Frankel

Updated December 22, 2024

**Email:** maxnfrankel@gmail.com

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Research Interests     Atomic, Molecular, and Optical Physics; Quantum Information

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Education	<b>University of Colorado, Boulder</b> PhD in Physics Advisor: Prof. Jun Ye	Boulder, CO Aug 2023 – Present
	<b>State University of New York, Stony Brook</b> BS in Physics with Honors & Optics Specialization, Summa Cum Laude <i>GPA: 3.97</i> Mentors: Prof. Dominik Schneble, Dr. Martin G. Cohen	Stony Brook, NY Aug 2018 – May 2022

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Research	<b>Ye Lab</b> (JILA / CU Boulder) Supervisor: Prof. Jun Ye Quantum metrology and the many-body physics of a degenerate Fermi gas of Sr87 in a 3D optical lattice.	Boulder, CO July 2023 – Present
	<b>Advanced Optical BioImaging Lab</b> (SciLifeLab / Royal Institute of Technology / Fulbright Sweden) Supervisor: Prof. Ilaria Testa Holographically generated optical focus arrays for RESOLFT imaging. Organized outreach program “Scientific Research Through an Artist’s Lens.”	Stockholm, Sweden Sep 2022 – May 2023
	<b>Ultracold Quantum Systems Group</b> (Stony Brook University) Supervisors: Prof. D. Schneble, Dr. M.G. Cohen Arbitrary optical traps for ultracold atoms with a digital micromirror device.	Stony Brook, NY Aug 2020 – Aug 2022

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Publications	Milner, W. R. et al. Coherent evolution of superexchange interaction in seconds long optical clock spectroscopy. Preprint at <a href="http://arxiv.org/abs/2402.13398">http://arxiv.org/abs/2402.13398</a> (2024).
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Posters	Probing superexchange interactions in a 3D optical lattice clock	Fort Worth, TX Jun 2024
	Creating adaptable multi-focal arrays (MFAs) for pRESOLFT with a spatial light modulator (SLM)	Porto, Portugal Apr 2023

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Honors and Scholarships	<b>Fulbright Research Award Sweden</b> (Fulbright U.S. Student Program) 1 of 13 selected for 9 months of funded independent research or study in Sweden. Awarded the Roth-Thomson award by the Lois Roth Foundation to support the community engagement project “Scientific Research Through an Artist’s Lens.”	Sep 2022 – May 2023
	<b>Outstanding Scholastic Achievement Award</b> (Swiss Benevolent Society of New York)	Aug 2021 – May 2022

Award granted to a college senior or graduate student who demonstrates sustained academic excellence (cumulative GPA of at least 3.8) in a demanding study program

**Sigma Pi Sigma Inductee** (American Institute of Physics) Apr 2021  
 Membership is awarded each year to selected physics students at Stony Brook University

**Academic Achievement Award** (Stony Brook University) Spring 2019, Fall 2019, Spring 2020, Fall 2020, Fall 2021  
 Awarded to students who achieve a 4.00 GPA for an academic semester

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Leadership	<b>RC Flying Club</b> (Stony Brook University) Aug 2019 – Aug 2021 President
	<b>American Institute of Aeronautics and Astronautics</b> (Stony Brook University) Sep 2019 – Jul 2020 Leader of the testing subteam and selected electronics for the national Design/Build/Fly competition aircraft. Qualified for the competition and placed 61/101.

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Memberships	<b>Sigma Pi Sigma</b> (American Institute of Physics) Apr 2021 – Present  <b>Laser Teaching Center</b> (Stony Brook University) Aug 2020 – May 2021  <b>Society of Physics Students</b> (American Institute of Physics, SBU chapter) Sep 2018 – May 2022 Participated in mentorship program supporting underrepresented groups in physics as a mentor, Nov 2021 – May 2022
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Skills	<b>Programming</b> Python, Mathematica, MATLAB  <b>Languages</b> English, Swiss-German
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