

Tommy Clark
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Education

California Institute of Technology; Graduation Expected June 2024
Physics Major 4.2 GPA (4.0 Scale)

Stanford Pre-Collegiate University Level Online Math and Physics; Graduation June 2020
GPA 4.0

Hinsdale Central High School; Graduation May 2020
GPA 4.0, SAT: 1560

Relevant Coursework: **Physics:** Advanced Quantum Mechanics, Quantum Computation/Information, Group Theory for Physicists, Computational Physics Lab I/II, Mechanics, Special Relativity, Electricity and Magnetism; **Math:** Partial Differential Equations, Complex Analysis, Group Theory, Calculus, Linear Algebra, Multivariable Calculus, Differential Equations, Probability and Statistics, Abstract Algebra;

Awards: Caltech Named SURF Fellow (David L. Glackin Memorial SURF), National Merit Semifinalist (2020), Fermilab Science Award (2020)

Research Experience

Astronomy SURF, Niels Bohr Institute Copenhagen (Summer 2021)

- Worked with Charles Steinhardt on implementing a novel temperature correction to photometry to better understand the cessation of star-formation of a galaxy.
- Developed various theoretical models for galaxy evolution, introduced a new phase of galaxy evolution.
- Wrote two papers with two to come.

Aeronautical Engineering Internship, Princeton University (June 2018)

- Worked with Dr. Luigi Martinelli to design airfoils using artificial intelligence.
- Tested the performance of our 3D models in a wind tunnel.
- Developed skills in python and numerical analysis.

Talks

Why do Galaxies Die? DAWN Cosmic Center, Niels Bohr Institute, Copenhagen Denmark (2021)

Publications

Implications of a Temperature Dependent IMF II: An Updated View of the Star-Forming Main Sequence

Tommy Clark

Charles Steinhardt, Thomas H. Clark, et al. (Submitted 2021)

Implications of a Temperature Dependent IMF III: Mass Growth and Quiescence

Charles Steinhardt, Thomas H. Clark, et al. (Submitted 2021)

Interests/Hobbies

- **Private Pilot License, Windy City Aviation** - (2017 - present)
- **Co-founder of SNAP Park App** - (2017-2019)
- **Self Teaching General Relativity/Quantum Cosmology**