JEREMY K. THALLER

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EDUCATION

Technische Universität München (TUM) *September 2019 - September 2020*
Anticipated M.S. in Applied and Engineering Physics
Erasmus Mundus: Masters in Materials Science Exploring Large Scale Facilities

Williams College *September 2015 - Present*
(*in progress*) B.A. in Physics with Honors
Pre-engineering studies

Acton-Boxborough Regional High School *2011-2015*
National AP Scholar
National Honors Society

TECHNICAL STRENGTHS

Programming Languages	MATLAB, JAVA, HTML, Python, Arduino (C/C++)
Data Software	Mathematica, Excel, LabView, LoggerPro
Other Software	LaTeX, Solid Works, Adobe Illustrator, Adobe Photoshop
Machining Experience	Bridgeport Milling, CNC Milling, 3D Printing, Laser Cutting

RESEARCH EXPERIENCE

Soft Condensed Matter Physics May 2018 - Present
Undergraduate Honors Thesis
Advised by Katharine E. Jensen, Professor of Physics *Williams College*

- Designed and built stretching apparatus to induce equibiaxial stretch in soft materials
- Used Fluorescent Confocal Microscopy to measure the strain dependency of solid surface stress is soft materials via adhesion
- Data was collected through modified MATLAB scripts from K.E. Jensen and M.L. Kilfoil

Atomic, Molecular, and Optical Physics June - August 2017
Undergraduate Research Assistant
Advised by Protik K. Majumder, Professor of Physics *Williams College*

- Took data towards an ultra-precise measurement of the Electric Quadrupole (E2) amplitude within the $6S^2 6P^2\ {}^3P_0 \rightarrow {}^3P_2$ transition in Pb
- Programed a PID controller in LabView to thermally regulate an oven to within $\pm.4°$ C at temperatures around 950° C
- Designed a deposition-rate detector for an indium cell chamber based on the mass dependent frequency of Quartz Crystals

TEACHING EXPERIENCE

Math and Science Resource Center Tutor

- Tutored all introductory physics and calculus courses Spring 2019 - Present

Physics/Math TA

- Introduction to Mechanics Fall 2017 & 2018
- Mathematical Methods for Scientists Spring 2018

Music Conducting

· George N. Parks Drum Major Academy staff member — Summer 2015

WORK EXPERIENCE

Office of Information Technologies — June 2017 - August 2017

· Student Technology Assistant — *40 hr/week*

Williams College Wind Ensemble — September 2016 - June 2017

· Teaching Assistant, Bassoonist — *40 hr/week*

PROFESSIONAL MEMBERSHIPS

American Physical Society — July 2018 - Present
New England Complex Fluids Workgroup — May 2018 - Present

LEADERSHIP

Williams College Track Captain — 2018-2019
WASA (College Rocketry Club) Founder/President — 2017-Present
High School Track Captain — 2014-2015
High School Head Drum Major — 2013-2015

PUBLICATIONS

Coming Soon... On track to submit adhesion paper to Nat Comm before graduation

POSTERS AND PRESENTATION

Adhesion-Based Measurements of Strain-Dependent Surface Stress in Soft Solids — *APS March Meeting 2019*

Sprinkling stuff and then stretching it: How hard could it be? — *Williams Physics Thesis Update*

Measuring Strain-Dependent Surface Stress in Soft Matter via Adhesion — *UMASS Soft Matter Day*

A Precise Measurement of the Electric Quadrupole Amplitude Within the $6S^2 6P^2\ {}^3P_0 \rightarrow {}^3P_2$ Transition in Pb — *Williams Summer Science 2017*

ADVANCED PHYSICS COURSEWORK

Condensed Matter Physics (Spring 2019)
Thermodynamics and Statistical Mechanics (Spring 2019)
Advanced Classical Mechanics and Fluid Dynamics (Tutorial)
Gravity
Particle Physics (Tutorial)
Quantum Mechanics
Philosophical Implications of Modern Physics
Electricity and Magnetism
Mathematical Methods for Scientists
Vibrations, Waves, and Optics

AWARDS AND ACHIEVEMENTS

Dean's List — *Williams College*
NESCAC Track & Field All-Conference
Stratus Technologies Engineering Scholarship
John Phillips Sousa Band Award — *Acton-Boxborough Regional High School*
Boston Globe Track & Field All-Scholastic
Boston Herald Track & Field All-Scholastic
Lowell Sun Track & Field All-Scholastic

ADDITIONAL INFORMATION

Interests Bassoon, Jazz Piano, Running, Bicycle Repair, Arduinos, Rocketry, Graphic Design
Languages German (Currently B2)