JEREMY K. THALLER

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EDUCATION

Ludwig Maximilians Universität München (LMU) &
Technische Universität München (TUM) *Oct. 2019 – Present*

- (In progress) MSci in Geomaterials and Geochemistry
- Erasmus Mundus: Masters in Materials Science Exploring Large Scale Facilities

Williams College *2015 – 2019*

- B.A. in Physics with Honors
- Pre-engineering Studies
- Sigma Xi

Acton-Boxborough Regional High School *2011 – 2015*

- National AP Scholar
- National Honors Society

TECHNICAL STRENGTHS

Programming Languages	MATLAB, Python, JAVA, HTML, Arduino (C/C++)
Python Packages	Pandas, sklearn, KERAS, NumPy, Seaborn
Data Software	Mathematica, Quantum Espresso, Excel, LabView, LoggerPro
Other Software	LaTeX, Solid Works, VESTA, Adobe Illustrator, Adobe Photoshop
Machining Experience	Bridgeport Milling, CNC Milling, 3D Printing, Laser Cutting, Arc Melting, Fluorescent Confocal Microscopy, SEM, TEM, XRD

RESEARCH EXPERIENCE

Amorphous Solids, Metallic Glasses, & Metallurgy Summer 2019
Postbac Researcher
Advised by Jan Schroers, Professor of Physics *Yale University*

- Nanomolded crystalline metals to determine the underlying mechanism.
- Measured atomic surface properties with SEM and determined crystal orientation with TEM

Soft Condensed Matter Physics May 2018 – June 2019
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
- Collect data via Fluorescent Confocal Microscopy
- Data was analyzed through modified MATLAB scripts to measure the strain dependency of solid surface stress in soft materials via adhesion

Atomic, Molecular, and Optical Physics Summer 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

DATA SCIENCE SKILLS

Python
Pandas
NumPy
Data Visualization
Data Cleaning and Feature Engineering
Command Line (BASH)
SSH + EMACS
Git and Version Control
Probability and Statistics

TEACHING EXPERIENCE

Math and Science Resource Center Tutor

· Tutored all introductory physics and calculus courses — Spring 2019

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

OTHER WORK EXPERIENCE

Office of Information Technologies — June 2017 – Aug. 2017

· Student Technology Assistant — *40 hr/week*

Williams College Wind Ensemble — Sept. 2016 – June 2017

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

PROFESSIONAL MEMBERSHIPS

Sigma Xi Associate Member — June 2019 – Present
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 – 2019
High School Track Captain — 2014 – 2015
High School Head Drum Major — 2013 – 2015

PUBLICATIONS

Toward and Adhesion Based Measurement of Strain-Dependent Surface Stress in Soft Solids — *Undergraduate Thesis*

POSTERS AND PRESENTATIONS

Measuring Strain-Dependent Surface Stress in Soft Solids

- Williams College Undergraduate Thesis Defense — *May 2019*
- APS March Meeting (Boston) — *March 2019*
- Williams College Thesis Midyear Update — *November 2018*
- UMASS Soft Matter Day — *July 2018*

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

- Williams College Summer Science — *July 2017*

ADVANCED COURSEWORK

Condensed Matter Physics
Thermodynamics and Statistical Mechanics
Classical Mechanics/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
Glass and Ceramics
Homogeneous Systems
Polymer Physics
Structural Determination
Computational Materials Design
Materials Science
Machine Learning

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, Rocketry, Graphic Design
Languages German (B1)