Deborah Ferguson

dferguson41@gatech.edu | (859) 699-2196 | deborahferguson.info

Education

PhD Student of Physics *2016-Present*
Georgia Institute of Technology

Master's of Science in Physics *2016-2017*
Georgia Institute of Technology

Bachelor's of Science in Physics *2013-2016*
University of Kentucky
Mathematics and Computer Science Minors
Summa Cum Laude GPA : 3.946

Research Experience

Graduate Student Researcher *2016-Present*
Studying Binary Black Hole Collisions to Probe Strong-Field Gravity
Advisor: Dr. Deirdre Shoemaker (Georgia Institute of Technology)

Undergraduate Student Researcher *2014-2017*
Milky Way Tomography with K and M Dwarf Stars: The Vertical Structure of the Galactic Disk
Undergraduate Senior Thesis
Published in ApJ
Advisor: Dr. Susan Gardner (University of Kentucky)
Collaborator: Dr. Brian Yanny (Fermilab)

Undergraduate Student Researcher *2013-2014*
Using Resonant Frequencies and Overtones to Calculate the Sound Velocity of TIPS Pentacene
Advisor: Dr. Joseph Brill (University of Kentucky)

Undergraduate Student Researcher *2013-2014*
Mobile Physics Engine Modeling Two Dimensional Elastic and Inelastic Collisions for
the Educational Demonstration of Physics Phenomena
Presented at the National Conference on Undergraduate Research
Advisor: Dr. Jerzy Jaromczyk (University of Kentucky)

Student Researcher *2012-2013*
Impact of Chemical Extracts of Seeds from Endophyte Infected and Non-Infected Tall Fescue
on Soil Microbial Communities
Advisor: Dr. David McNear (University of Kentucky)

Student Researcher *2011-2012*
Testing the Accuracy of the Honeywell HMC5883L 3-axis Magnetometer
Advisor: Dr. Christopher Crawford (University of Kentucky)

Teaching Experience

Graduate Teaching Assistant *2016-Present*
Georgia Institute of Technology

Physics 2211 and 2212 - Introductory Physics I and II
Physics 2232 - Honors Introductory Physics II

Publications

Ferguson, D., Gardner, S., & Yanny, B. 2017, ApJ, 843, 141

Honors and Awards

Georgia Tech Institute Fellowship *Aug. 2016*
Georgia Institute of Technology

Outstanding Senior in Physics *May 2016*
University of Kentucky

Oswald Award Honorable Mention *Dec. 2015*
University of Kentucky

**University of Kentucky ACM Chapter Algorithmic Programming
Competition** *Oct. 2015*
University of Kentucky First Place in Division II

Summer Research Grant *May 2015*
University of Kentucky

Outstanding Junior in Physics *May 2015*
University of Kentucky

IEEEXtreme 24-Hour Programming Competition *Oct. 2014*
IEEE 42nd in the United States

Singletary Scholarship *Feb. 2013*
University of Kentucky

National Merit Finalist *Feb. 2013*
National Merit Scholarship Foundation

Technical Skills

Python, C++, Java, Root, Matlab, Mathematica, Linux