

My name is Eric Roebuck. I am currently senior at the University of Pittsburgh on the verge of receiving a Bachelor's of Science degree in Physics and Astronomy, with a minor in Mathematics. My plan is to attend graduate school to attain a degree in Astronomy and Astrophysics.

Mathematics was always something that I excelled in even from an early age. I recall being very young and my father introducing me to times tables almost before I could spell my name. I took Physics first my junior year in high school, and noticing my passion for assembling experiments, my teacher suggested I take up a field of engineering for my undergraduate degree. However, after a year of freshman engineering classes I made my decision to take up Physics and Astronomy instead. My desire to understand the fundamentals of the world seemed more appealing to me rather than practically applying them. I want contribute to the finding of answers to those things that don't yet have them, and it is my desire to spend my adult life doing just that.

Currently I am a part of a research group called STEPUP, Survey of Transiting Extra-Solar Planets at the University of Pittsburgh, my mentors being Professor Michael Wood-Vasey, who received his PhD from UC Berkeley, and a graduate student of his Melanie Good. The breakdown is that we obtain data using an automated 16" Meade RCX-400 telescope, and then analyze the data using the programming language IDL. We've recently contributed data to a transit project being written on the planet HD80606b, in which my name will appear on the paper. Our current areas of focus are by refining our data analysis techniques and by observing a wide variety of known transits. The goal for the coming fall is to measure transit timing variations in order to draw conclusions about other possible bodies in the systems.

I am open minded to a variety of different fields within Physics, and am both interested and excited to experience new and different concepts, and to broaden my understanding of some of concepts I am interested in. I take great pride in pushing myself intellectually and whole heartedly believe that I am capable of becoming a respectable member of the scientific community. I hope that you will consider me for an addition to your graduate program.