Dear Mr. Wally Stoelzel,

I would like to thank you very much for the scholarship that you have provided so that students like me are able to receive an education, which can in turn be used to bless the lives of other, as you have done. My name is Cody Petrie, I am a recipient of the Wally Stoelzel Physics Scholarship for the Fall 2017-Spring 2018 academic semesters. When I was in High School I was an average student who earned decent grades, but didn't really care much for school. My senior year of High School I took a physics class, which changed my perspective on education. I loved the idea that I would use physics to predict the future, given the current state of a system. Since then my love of physics and education has only grown. I hope to be able to pass that love and excitement on to the next generation, especially to my kids.

I am a father of 2 boys and 1 perfect little girl. I married the love of my life half way through my undergraduate degree, approximately 5 years ago. We figured that it was probably crazy but decided to start a family not too long after being married. My family is one of the most important things to me. As a results, I strive to pass on my enthusiasm for physics and learning to my kids. I also serve as a boy scout leader, leading a troop of 10 year old boys. I strive to have a positive influence in the life of those boys, teaching them that there is more to life than making it to the next level in their favorite video game. Getting this scholarship has lifted my financial burden so that I can focus more of my efforts towards influencing the lives of those around me, and advancing my own education and research.

At ASU I do computational nuclear physics using Monte Carlo methods to solve for properties of nuclear systems. As you probably know, our understanding of the fundamental interactions between nucleons in nuclear systems is limited. This is due to the complexity of the nuclear interaction. We use model interactions that come from effective field theories within the Monte Carlo framework to solve for properties like nucleon density and ground state energies of light to medium nuclei as well as nuclear matter. My research could help us quantify the importance of different parts of the nuclear interaction, like the pion exchange and three body interactions. It could also give us insight into the formation and properties of neutron stars. I have also done experimental and computational optics research on a variety of topics. and I even did a summer internship at Los Alamos National Laboratory studying the incidence of HIV in Sweden using a statistical model based on Bayesian statistics. In addition to research I am a teaching assistant for a new online-based physics course. This has been an exciting opportunity to help students all around the world learn about physics. I have volunteered to judge a high school science fair, and will be going to Mexico this summer to teach a week long course on some interesting physics to high school age and beginning undergraduate students.

I love learning physics, and I love sharing my excitement for it with others. Your scholarship has made it possible for me to do both of those things without having to stress about the financial burdens of being a graduate students with a family, while trying to serve the community at the same time. Again I thank you so much for your kind support.

Sincerely,

Cody Petrie