

Sarah Anderson

Graduate Institution: University of Michigan-Ann Arbor

Graduate Discipline: Atomic physics

Hometown: Saint Paul, MN

Relevant SC Research: Basic Energy Sciences



Research Interest:

My research interests are in atomic physics; specifically, atom-atom interactions, laser cooling and trapping of atoms, Rydberg atom trapping, and quantum computing. My current work involves developing a novel method for trapping Rydberg atoms in a ponderomotive optical lattice. Rydberg atoms have exaggerated properties, such as long lifetimes and strong atom-atom interactions. An optical lattice trap for Rydberg atoms would provide a means to exploit these beneficial properties, as well as a new way for controlling these atoms and studying atom-atom interactions at a fundamental level. Rydberg atoms trapped in an optical lattice are also an attractive candidate for accomplishing quantum computing.

About Me:

I am entering my fifth year of graduate studies in physics at the University of Michigan in Ann Arbor, where I study atomic, molecular and optical physics. My research focuses on Rydberg atoms and is under the direction of Georg Raithel. Ultimately, my career goal is to become a college professor, a position that combines both research and teaching.

Outside of the lab, my hobbies include playing violin, reading, and running.



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