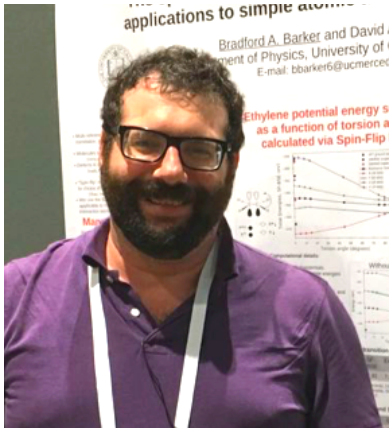


# STEM Webinar Sessions

## July Sessions

July 30th, 2020

2020  
BOBCAT SUMMER STEM  
ACADEMY  
VIRTUAL EDITION



### **Presenter: Dr. Bradford A. Barker**

#### **How to measure the speed of sound with just a cell phone and a straw?**

We will first briefly review the general physics of waves, as well as the physics of standing waves in open and closed pipes. Then we will use the free cell-phone app “phyphox” to plot the audio spectrum of sound from blowing into an open or closed straw (or any other readily available pipe-like structure). Finally, we will generate several estimates for the speed of sound from this data.

### **About the Presenter:**

I earned my doctorate in physics at UC Berkeley in 2018, and I am currently a post-doctoral scholar at UC Merced. I am working with my adviser, Prof. David A. Strubbe, on theoretical and computational techniques to elucidate the electronic structure of open-shell molecules and defected solids. I have worked as a substitute lecturer for Prof. Strubbe at UC Merced, as well as a graduate student instructor for subjects from General Physics to The Quantum Theory of Solids.

### **Who is the webinar session open to?**

**K-5 (Elementary school), Grades 6th-8th (Middle School), Grades 9th-12th (High School), Teacher, Community members, Undergrads**

### **When is the session:**

- **July 30th: 11am to 12pm**

### **How can you register?**

#### **Zoom Registration Link Below:**

**<https://ucmerced.zoom.us/meeting/register/tjctd-mgqT4sH9LSLDivm8FfMJ6onn9YM7Wm>**