

# Spring 2023 Colloquium

Department of Physics & Astronomy,  
Texas A&M University-Commerce

**April 6, Thursday, 4-5 PM in Science Building 127**

(coffee and cookies will be served at 3:50 PM)

**Physics Education**

## **Understanding the Role of Outreach in Creating Physicists**

**Dr. Jonathan Perry**

**University of Texas at Austin**



Dr. Jonathan Perry joined the University at Texas at Austin as an Assistant Professor of Instruction in fall 2019. Prior to this he completed his Ph.D. in physics at Texas A&M University and worked as a physics course coordinator for a dual enrollment program, work with high school physics teachers across Texas. His research focuses on physics education in both formal and informal contexts, understanding the role that outreach programs can play in student development, and recently exploring how to best facilitate equitable group work in introductory labs. In teaching he works to create active learning environments in the classroom and support faculty development in teaching at the department, college, and university levels.

### **Abstract**

The transformation from novice to physicist is a complex process that is guided by experiences both in and outside the classroom. Informal physics programs, often called outreach, can provide a critical context for experiences that promote this transition. In recent years, this interaction has begun to be systematically explored and studies have hinted at positive links between the development of a student's physics identity and their facilitation of informal physics outreach programs. During this talk, I will share the frameworks and results from student-focused investigations on the impacts of student facilitation of informal physics programs on dimensions including physics identity, sense of belonging, and the development of 21st century career skills from surveys and interviews conducted with students from a large, public university. I will also share findings from an analysis on a subset of this data focusing on experiences of women in physics. Ongoing and future efforts related to this work will also be discussed.