Prof. Eve Mozur

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Friday, December 1, 11:00 am. Osborne A204

Magnetic measurement: from batteries to skyrmions

Magnetism is the study of interactions between electrons, a fundamental property of matter that can be investigated using magnetometry. Generally, magnetometry is used to characterize the magnetic structure of materials for conventional applications, such as data storage and quantum computing. However, materials for a wide range of applications can benefit from magnetometry experiments. Here, we will discuss the practicalities of magnetic measurements. We will focus both on materials for energy applications and more conventional magnetic applications.

Short Bio

The central question of Dr. Mozur's scholarship is *"Why do we use the materials that we use?*". Answering this question necessitates an atomistic and microscale understanding of the relationship between the structure and properties of the material in question. It also generates new questions, such as "*What makes this material so effective in its application?"* and *"Are there better materials?"* that the Mozur Research Group is equally interested in answering.

Dr. Mozur completed her PhD in Chemistry in the lab of Prof. Jamie Neilson at Colorado State University, investigating the impact of organic cation dynamics in hybrid perovskites for photovoltaics. After earning her PhD, Eve worked as a post-doctoral researcher in the Materials Research Laboratory at the University of California Santa Barbara under Prof. Ram Seshadri. There, she studied the role of composition on the formation of large magnetic bodies, such as skyrmions.