

**SPACE PHYSICS AND ASTROPHYSICS JOINT SEMINAR****Effective and meaningful engagement of underserved and disproportionately impacted communities in STEM learning**

Developing science education initiatives which target the needs of underserved and disproportionately impacted groups help bridge educational disparities and are crucial for ensuring equal access to STEM learning. By addressing the specific needs of these communities, we empower individuals to pursue STEM careers, fostering a more diverse scientific community and enriching the scientific landscape. Ultimately, inclusive learning initiatives promote social justice, advance scientific knowledge, and contribute to a more equitable and prosperous society.

In this talk, I will discuss strategies that I have identified over the past decade for effectively and meaningfully engaging these communities in STEM learning, drawing from firsthand experiences in developing astronomy education initiatives both in Africa and among remote Indigenous communities in Canada. Examples of which include centring community-specific approaches, the development of living, adaptive curricula tailored to address the unique needs of learners, and

strategies for delivering effective instruction in low-connectivity environments. I will also discuss the importance of cultivating teaching teams that mirror the intended audience, and the role representation plays in nurturing an inclusive learning environment. Finally, I will explain why sustainable program management is essential for community engagement and creating enduring, long-term impact. Throughout my presentation, I will candidly reflect on my own journey in confronting personal biases and acknowledging the privilege inherent in my identity as a white woman from settler heritage working in these contexts.

**Monday, October 30th****3:30 - 4:30 p.m.****CAS 502****Heidi White****University of Montreal**