

Physics & Astronomy Colloquium

Presents



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Thursday, February 18, 2021

4:10 pm via Zoom

Meet the speaker at 3:30 pm, join us in welcoming the speaker and for an informal chat!

“Supporting Inclusive Physics Community through a Learning Assistant Program”

The physics department at Texas State University has implemented a Learning Assistant (LA) program in all sections of our calculus-based introductory physics sequence. Our LA program is structured specifically to create an inclusive community and develop a shared culture of mutual support. Program structures are informed by the theory of Communities of Practice, which describes learning as an ongoing process shaped by participation in overlapping communities. The majority of our majors now serve as LAs for at least one semester. In interviews and written reflections, LAs describe changing their ways of learning and of being students, both within and beyond physics, as a result of their LA experience. In addition, they have a stronger sense of belonging to a supportive and collaborative community of peers, near-peers, and faculty. This positively impacts both retention of majors and recruitment of physics students into teaching careers. In this talk I will describe two related research projects that explore the impact of LA program participation on the LAs’ physics identity and sense of belonging.

In one ongoing study, we analyze video data of weekly LA preparation sessions using the theoretical framework of Communities of Practice to understand how LAs’ interactions during these sessions impact their physics identity as enacted in the community. We see evidence that the social nature of these sessions supports LAs’ identity work of reconciling forms of membership in the physics community with those of other valued communities. We hypothesize that opportunities for this identity reconciliation are essential for students’ sense of belonging in physics.

In a related study of intersectional physics identity, physics students with multiple marginalized identities—defined as Black, Indigenous, Women of Color, and LGBTQ+ women—shared their unique experiences and reflections on their identity as physicists in semi-structured clinical interviews. When asked to describe elements supporting their success in physics, all interview subjects named the LA program. Their participation as LAs in the equity-oriented LA Pedagogy course created relational safety with their peers, and engaging in collaborative LA weekly preparation sessions created opportunities for them to find people with shared identities.

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Host: Dr. Anya Rasmussen

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