Cal Poly Pomona

Colloquium Series
Department of
Mathematics & Statistics

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Discourse, Power, and Proof: How Storylines Shape Mathematical Status in Collaborative Proof Activity

Abstract: In this talk, I share findings from a study that explored how students' discourse revealed and shaped power dynamics as they collaborated on a proof construction task in an inquiry-based introduction to proof course. Drawing on positioning theory, we analyzed a particularly rich episode of group work where collaboration was high, yet power dynamics appeared uneven. Our analysis revealed a set of implicit storylines about the nature of mathematics and proofs, the role of an external authority, and university culture that shaped students' interactions and their perceived status within the group. These storylines influenced who had the right to validate the group's mathematical work—a role closely tied to being positioned as an expert. By unpacking these dynamics, I argue for a broader conception of what it means to "do mathematics" in proof spaces, one that values creativity, intuition, and collaboration alongside logic and precision. This work invites us to reflect on how classroom discourse can either challenge or reproduce inequities in mathematical spaces.

October 22, 2025 1:05 – 1:50 pm in room 4-2-314

Join remotely via Zoom: https://cpp.zoom.us/j/84908036425