

CPAESS Discovery Seminar

From Local Validation to Spatial Evaluation: Characterizing Great Lakes Waves Using Satellite and In Situ Observations

DATE: Wednesday, October 21, 2026

TIME: 11:00 AM – 12:00 PM MT (VIRTUAL)

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Winter brings some of the largest waves and strongest winds to the Great Lakes, just as many data collecting buoys are removed to protect them from ice and harsh winter conditions. This leaves a gap in our understanding of winter waves and our ability to check how well wave models represent them. In this presentation, I'll show how new winter Spotter buoy deployments and detailed wave observations from the SWOT satellite are helping close that gap. We'll look at what these measurements reveal about winter wave conditions and how they compare with WAVEWATCH III model simulations. Together, these observations give us a clearer picture of Great Lakes wave behavior and connect what we observe on the lakes with what our models predict.

Kaitlin Pereira is a PhD candidate at the Colorado School of Mines and a CPAESS WINGS fellow studying Great Lakes waves.



SPEAKER

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