

TSI SEMINARS - FALL 2026

Monitoring coastal hazards at daily to 100 year timescales from storms and sea level rise

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Abstract: Increased rates of land ice loss and ocean heat uptake are accelerating sea level rise, requiring coastal planners to improve flood forecasting techniques and modify existing infrastructure. Coastal flooding is influenced by drivers spanning a wide range of time and space scales, including sea-level rise, climate and seasonal cycles, tides, ocean eddies, and storm surge. Improving our ability to understand and predict coastal change requires large-scale monitoring programs that do not currently exist over most regions. Satellite observations of shoreline change promise global coverage, but their role in prediction has not yet been determined. In this talk, I will describe how new satellite-based techniques, combined with field observations, help us understand how coastlines are expected to evolve over the next century. I will first focus on ongoing change at sandy coastlines, then discuss the processes through which the large ice sheets will contribute to future sea level rise.



September 8
3:30 PM



Bell Room (Rutherford 103)



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Trotter
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