

**Johns Hopkins University**

# Center for Environmental & Applied Fluid Mechanics

**3:00 PM, Friday, February 20, 2026**

**Gilman Hall 50**

**Zoom:** <https://wse.zoom.us/j/93762992307>

[Link for Spring 2026 recordings](#)



**Prof. Alexis Kaminski**

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## ***“Stratified Mixing on the California Inner Shelf”***

**Abstract:** The inner shelf (the nearshore region connecting the surf zone and midshelf) is home to a variety of fluid dynamical processes, including surface and internal waves, vortices, and boundary layers. These processes, and their interactions with each other, control the resulting nearshore circulation and transport over a variety of space and time scales. In this talk, I will introduce this complex region, with a focus on the associated stratified turbulent mixing. Using data from an intensive sampling period during the 2017 Inner Shelf Dynamics Experiment, I will describe how the turbulence in the region varies over timescales from minutes to days. In particular, I will show how periods of intense mixing are associated with shoaling internal bores, with different structures arising over the course of the observational period. I will finally discuss how the observed flows can be modelled using idealized stratified and buoyancy-driven flows, namely gravity currents and nonlinear internal waves.

For more details, visit: <https://me.berkeley.edu/people/alexis-kaminski/>

**Hosted by:** Prof. Dennice Gayme (MechE)