

## SEMINAR SERIES

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Pacific Forum



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### ***Multi-annual, daily-resolved interplay between dust, marine particulates, and seawater compositions in the oligotrophic northern Red Sea***

Real time observations of particulate fluxes, their compositions, related biogeochemical cycles, and distribution patterns of trace metals in deep open ocean waters are extremely rare, and more so in the context of continuous, highly resolved records. The Gulf of Aqaba (GOA), northern Red Sea, is a deep oligotrophic water body surrounded by hyper-arid deserts with no major tributaries, limiting terrigenous influxes to surface waters, except for seasonal dust storms. In this talk, Adi Torfstein will present coeval, multi-annual, time series from the GOA of atmospheric dust loads, bulk and export production particulate fluxes (based on sediment traps), and dissolved trace metal perturbations across discrete dust storm events. The results are used to constrain the main sources and sinks of solid and dissolved phases in the GOA, and quantify the rate and magnitude of seasonal and short term perturbations associated with dust storms, fluvial episodes and bottom resuspension events.