INPs in the sea surface microlayer

- Heterotrophic bacteria and marine polymeric particles as proxies for biogenic high-temperature INPs in remote ocean regions
- Enrichment between bulk and surface microlayer

Sea-air transport of INPs

- Concentration of jet drops ($d_{\text{wet}} > 1 \, \mu\text{m}$) derived from E3SM model runs
- Entrainment of marine particles assumed to follow Poisson statistics

Comparison with observations

- High ice nucleation activity ($n_s$) of simulated episodic INPs required to match observations