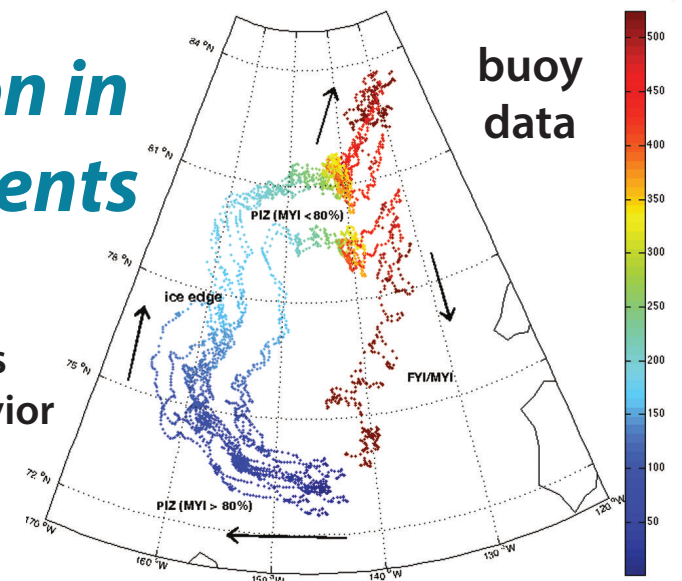




Ice floe diffusion in winds and currents

on short time scales floes exhibit Brownian-like behavior



- Effective behavior is purely diffusive, sub-diffusive or super-diffusive depending on ice pack and advective conditions - **Hurst exponent**.

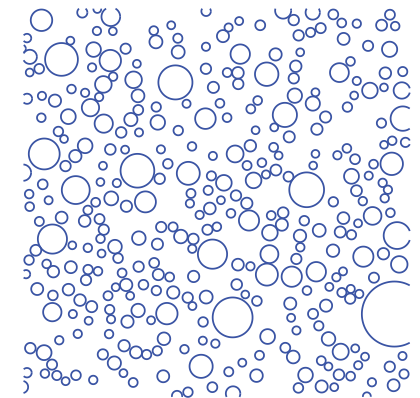
On sea-ice dynamical regimes in the Arctic Ocean

Jennifer Lukovich, Jennifer Hutchings, David Barber, *Ann. Glac.* 2015

Anomalous diffusion and sea ice dynamics

Huy Dinh, Ben Murphy, Elena Cherkaev, Ken Golden 2021

floe-scale model - crowding jamming, advective forcing



sea ice concentration = 0.3

Home ranges in moving habitats: polar bears and sea ice

Marie Auger-Méthé, Mark Lewis, Andrew Derocher, *Ecography*, 2016

