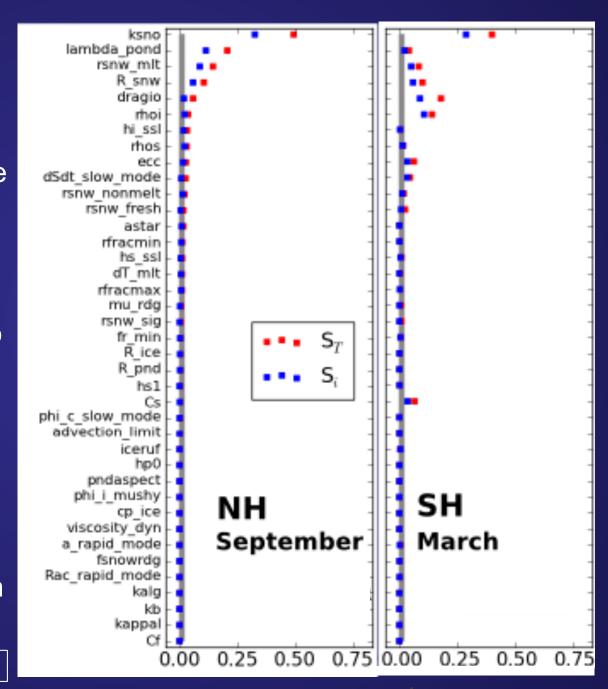


Parametric Uncertainty Quantification

39 parameters were tested simultaneously for primary and secondary (interacting) sensitivities

- 400 CICE model runs were used to develop a fast statistical emulator for sea ice volume, area and extent
- CICE is mainly sensitive to snow conductivity, melt pond drainage, snow grain size, ice radiative scattering layer and snow and ice densities
- Primary effects are nonlinear in parameter space and interactions can produce the opposite sign



Jorge Urrego-Blanco et al., JGR Oceans, 2016