

SOCA experiment cycling

- ❖ What we do or work towards:
 - Climate reanalysis
 - S2S initialization
 - Ocean/sea-ice/Atm Coupled DA for NWP
 - High resolution regional DA for the HAFS

- ❖ Obstacles
 - Lack of common software framework for:
 - **diagnostics**
 - obs modifications (superobing, retrievals, ...)
 - stable workflow or workflow tools
 - Quality control of observation databases
 - **Coupled DA with multiple interfaces**
 - **Covariance modeling:**
 - Slow initialization of BUM3D for small scales
 - Layout dependency of BUMP
 - Restarting model done through a checkpointing app in soca