

Yen-Heng Lin

Wild fire MJJAS ONS total burned area increased dramatically in the past two decades.
Associated with heat waves, santa ana wind events.

Averaged burned area related to dry condition

Long term circulation change Z250 mean and variance every 10 yr running window

CMIP6 can't simulate multi-year circulation change

Discussions

Lu:

large ensemble

Emergent constraints

Machine learning

Tarun:

Haiyan:

Gap:

Ben: E3SM multiyear prediction?

Jerry: NCAR&Miami already working on that. Computer resource.

Matt: E3SM large ensemble 20member

christiana : promote analysis with E3SM

Yaga: role of stratosphere in multiyear predictability

Young-oh: large ensemble need more DPLE from other models

Flavio: single forcing run with E3SM

Matt: var in the 12 members in north pacific is entire forced,

Matt: S2S forecast opportunities

Future directions:

Celine: understand aerosol climate response. Forced change in the modes of variability

Understand different techniques (lim ML, ESM)..what can we get from different tools

Tarun:

ML combined with obs,

Balu:

Initialization problem. ML may leverage the drift problem.

Matt: model states vs obs in initialization, to reduce drift.

Ben: how to initialize coupled modes? In nature or in the model coupled mode.

Feifei: E3SM joint error compensation from clouds. Weaker wind and weaker damping, good el nino for the wrong reason. Model is physically biased, will lead to a prediction problem. Gap: focus on process that lead to improvement of the model.