

EGU2020-4052

<https://doi.org/10.5194/egusphere-egu2020-4052>

EGU General Assembly 2020

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



South Asian Summer Monsoon Variability and its teleconnections in CMIP6 Simulations

Ajayamohan Ravindran, Praveen Veluthedathekuzhiyil, and Sabeerali Cherumadanakadan Thelliyil

New York University Abu Dhabi, Center for Prototype Climate Modeling, Abu Dhabi, United Arab Emirates
(ajaya.mohan@nyu.edu)

The mean and subseasonal monsoon variability is evaluated using simulations from 26 CMIP6 models in the present and future scenarios. In particular, the simulation of the monsoon trough, low pressure systems, and its relationship with seasonal rainfall, teleconnections with Pacific and Atlantic Oceans are analyzed, and the corresponding changes in the future scenario are investigated. Based on the fidelity of the model to simulate mean monsoon features, a set of models with good skill is identified. Selected good models are then used to analyze dynamical and teleconnection features. This study highlights and contrasts the performance of CMIP6 models in simulating various monsoon characteristics with CMIP5 models and further stresses the need for better water management strategies.