River and snow analysis for Hi-Res simulation



Tian Zhou

Pacific Northwest National Laboratory





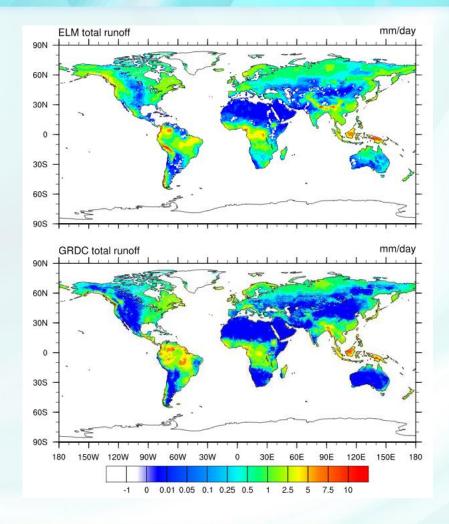
Effect of resolution (compare with low-res)

- Seasonality of river discharge at global gauge locations
- Snow water equivalent (SWE) spatial pattern and seasonality

Sample plots

 Global annual runoff field comparison based on GRDC gauge data

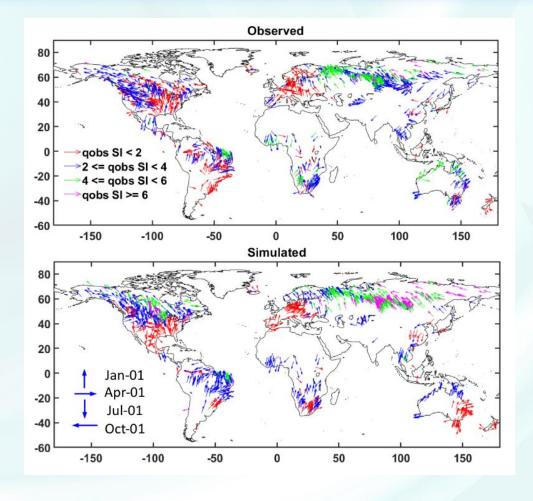
(Golaz et al. 2019)



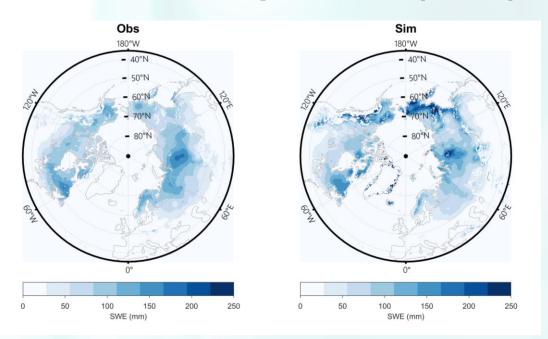
Sample plots

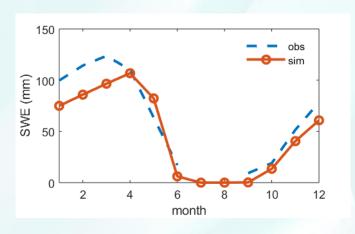
- Seasonality of river discharge at global gauge locations
- Peak timing of the river discharge

(Golaz et al. 2019)



Snow Water Equivalent (SWE)





Mean seasonality (1979-2006) of SWE in central Euroasia

space-borne passive radiometer data (SMMR, SSM/I, and SSMIS) with data from ground-based synoptic weather stations.