Global Water Resource Assessments: Comparison of Models to GRACE Satellites

Dr. Bridget R. Scanlon

Jackson School of Geosciences, University of Texas at Austin

2018 6 15 10:00~11:00

40 319

Abstract

Increasing interest in global hydrology based on modeling and remote sensing underscores the need to compare results from these two approaches. Here we compare simulated land Total Water Storage anomalies (TWSA) from global hydrologic models (WGHM and PRC-GLOBWB) and land surface models (NOAH, MOSAIC, VIC, CLM, CLSM) to TWSA from newly released Gravity Recovery and Climate Experiment (GRACE) mascons solutions from Univ. of Texas Center for Space Research (CSR) and NASA Jet Propulsion Lab and from traditional spherical harmonic solutions. There is generally good agreement between modeled and GRACE-

9804 100029

Address Institute of Atmospheric Physics, Chinese Academy of Sciences, P. O. BOX 9804, Beijing 100029, China

Short Bio.

Bridget Scanlon is a Senior Research Scientist at the Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin. Her degrees are in Geology with a focus on hydrogeology with a B.A. Mod. from Trinity College, Dublin (1980); M.Sc. from the Univ. of Alabama (1983), and Ph.D. from the Univ. of Kentucky (1985). She has worked at the Univ. of Texas since 1987. Her current research focuses on various aspects of water resources, including global assessments using satellites and modeling, management related to climate extremes, and water energy interdependence. She serves an Associate Editor for Water Resources Research and Environmental Research Letters and has authored or co-authored 100 publications. Dr. Scanlon is a Fellow of the American Geophysical Union and the Geological Society of America and a member of the National Academy of Engineering.