

# **Supporting Information for**

## **Use of GRACE Satellite Gravimetry for Assessing Large-Scale Hydrologic Extremes**

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### **Contents of this file**

- A. Comparison of TRMM, GLDAS precipitation forcing V1 & V2
- B. Full intrinsic mode functions identified for Mississippi, Nile, Zambezi, and Murray-Darling basins.

## A. Comparison of GLDAS V1 and V21 precipitation forcing data with TRMM

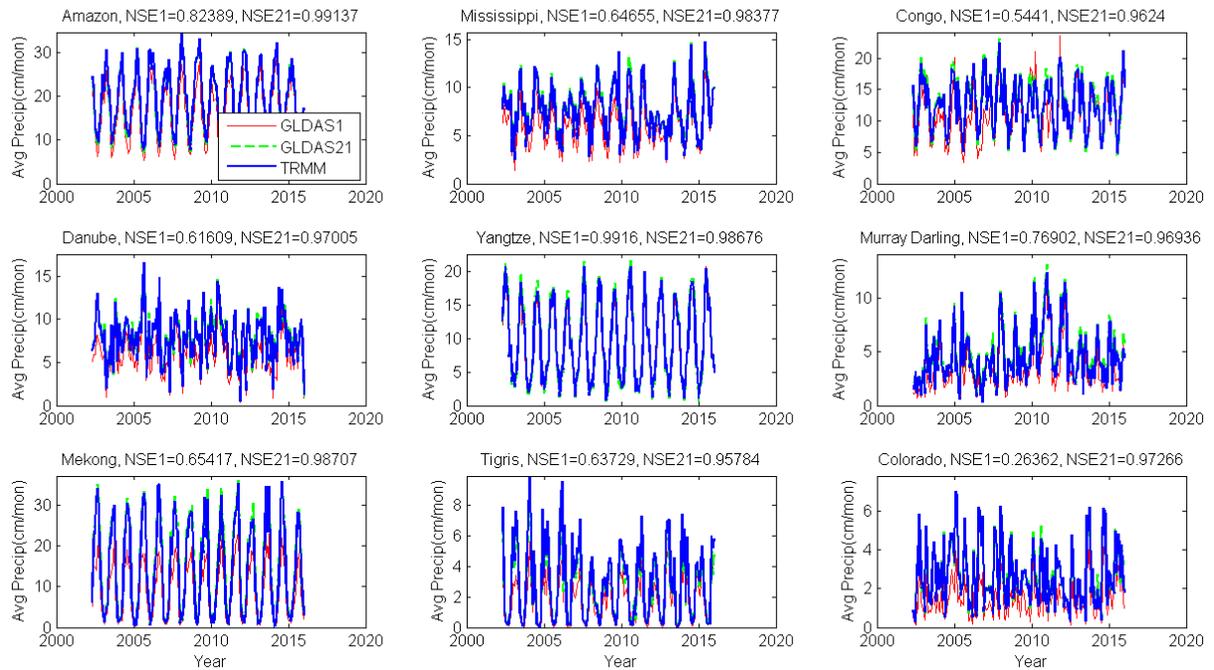
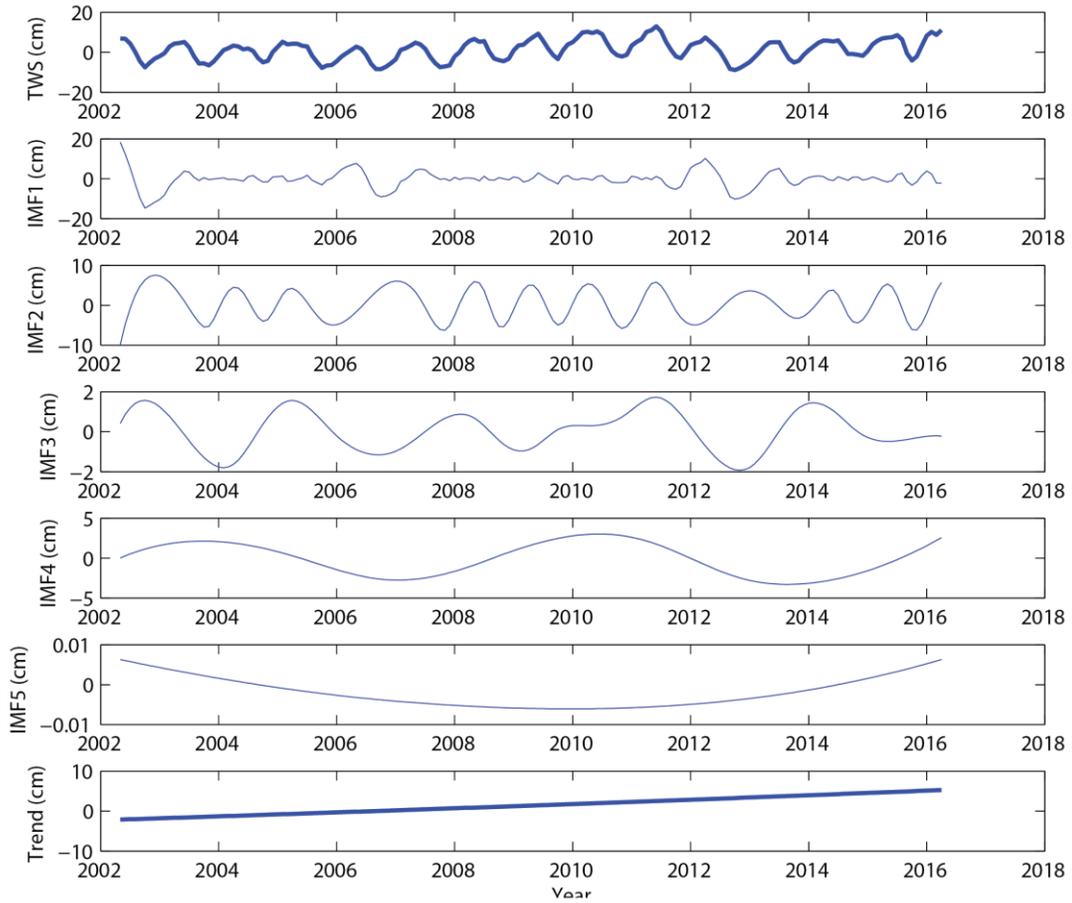


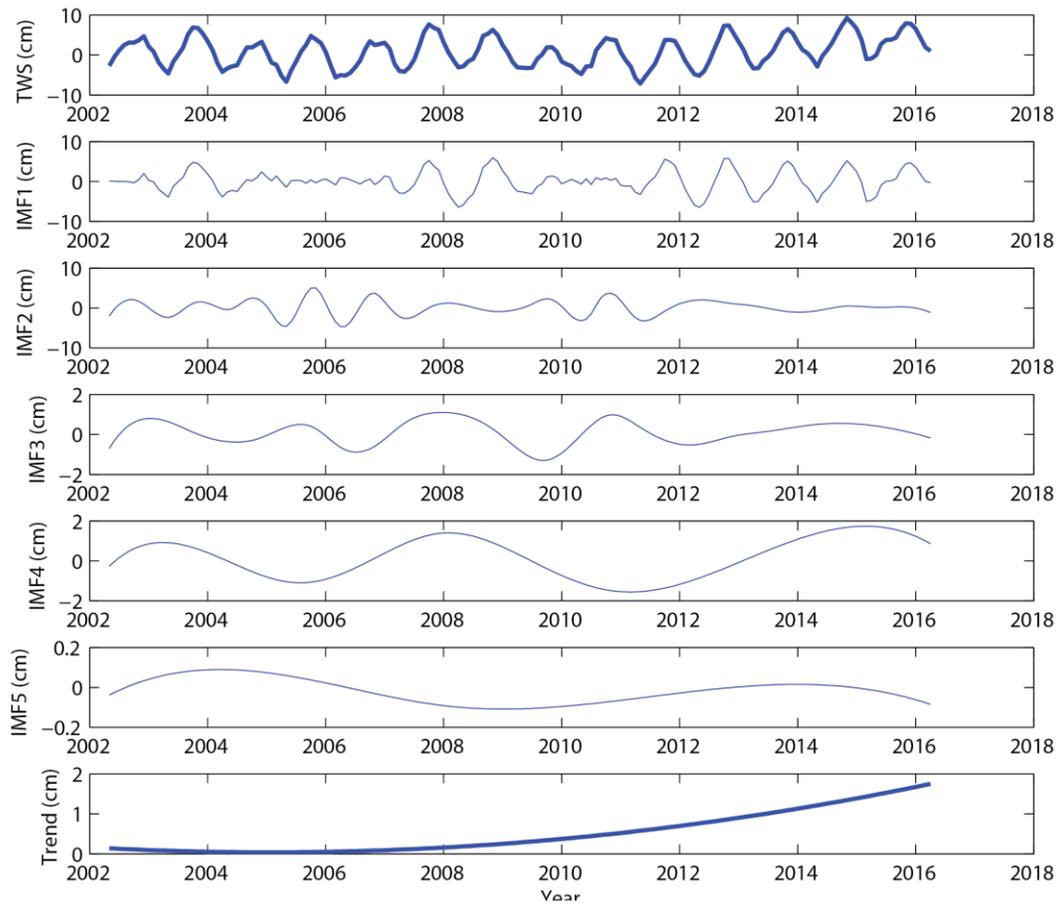
Figure S1. Benchmarking of GLDAS V1 and GLDAS V2.1 precipitation forcing against TRMM (3B43V7), where NSE1 is Nash-Sutcliffe efficiency calculated between GLDAS V1 and TRMM, and NSE21 is between GLDAS V2.1 and TRMM. GLDAS V2.1 data are very similar to TRMM for all river basins ( $NSE21 > 0.95$ ), while GLDAS V1 data show large discrepancies.

## B. EMD results for Mississippi, Nile, Zambezi, and Murray-Darling Basins

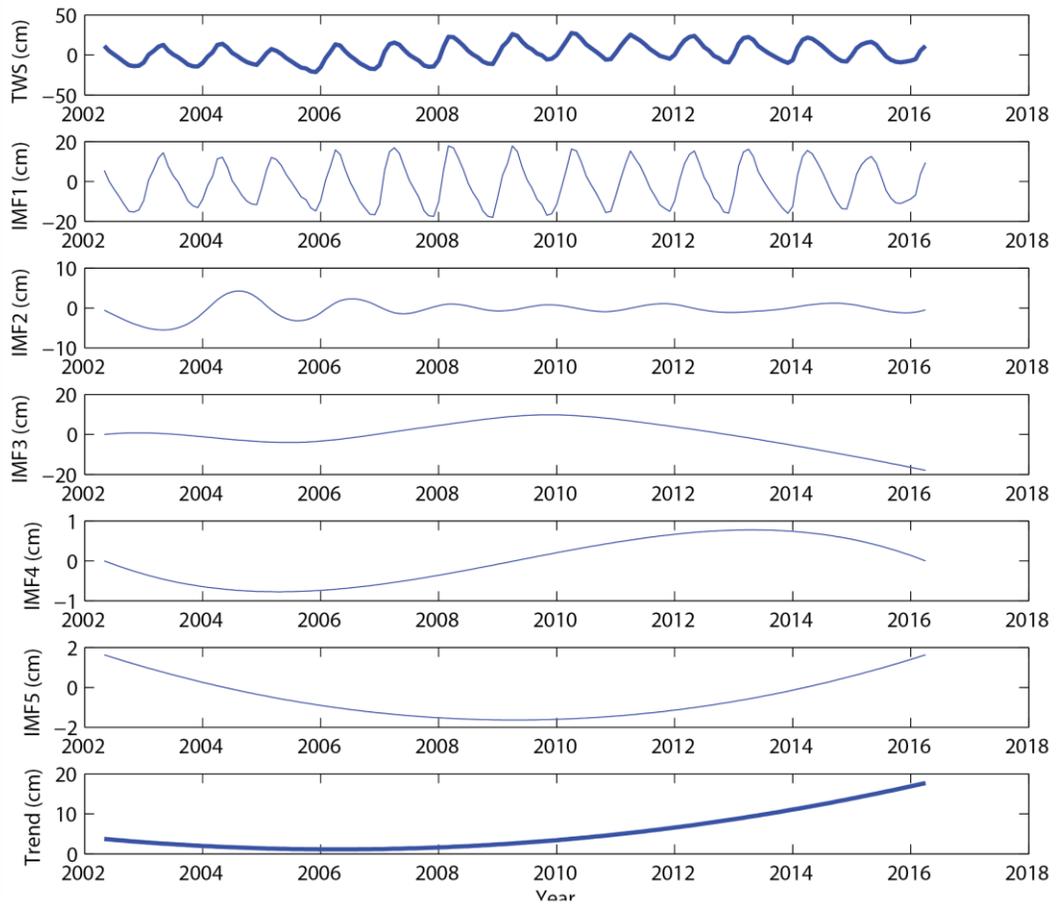
### B.1 Mississippi



## B.2 Nile



### B.3 Zambezi



## B.4 Murray-Darling Basins

