

Abstract for the 10th Workshop of the International Precipitation Working Group (IPWG) and 6th International Workshop on Space-based Snowfall Measurement (IWSSM)

**Title: An Update on NASA GES DISC's Precipitation Products and Services**

Zhong Liu(1, 2), Andrey Savtchenko(1,3), Angela Li(1), Jennifer Wei(1), and David Meyer(1)

1. NASA Goddard Earth Sciences Data and Information Services Center (GES DISC)
2. CSISS, George Mason University
3. ADNET Systems Inc.

Emerging technologies such as cloud computing and AI/ML(Artificial Intelligence/Machine Learning) are leading the pace of the data world. The NASA Goddard Earth Sciences Data and Information Services Center (GES DISC), home to the permanent archive for GPM, TRMM, and other global and regional precipitation products (e.g. IMERG, TMPA, GPCP V3, NLDAS, GLDAS, MERRA-2) is no exception in terms of data services.

Data services are essential to facilitate data access and to help improve efficiency of research activities, thus maximizing investment in scientific missions. Over the years, the GES DISC has developed a wide range of data services to follow the FAIR data principles (e.g. Findable, Accessible, Interoperable, and Reusable) from the user community around the world. In particular, Giovanni (<https://giovanni.gsfc.nasa.gov>) is an online visualization and analysis tool that empowers users to explore over 2000 most updated earth observing variables covering atmosphere/land/ocean without needing to download data or requiring additional software.

We have seen the high demand of our data services associated with precipitation parameters being applied to many interdisciplinary research and applications by our users. And yet, finding a right dataset for a specific research or application need has become a challenge to users, especially to new users.

In this presentation, we will report our latest activities with regard to global and regional precipitation products and services at the GES DISC, including our plans for the emerging technologies. We would like to hear your inputs, in particular, requirements and use cases which the emerging technologies might be able to help.