

Results from the SPARC Reanalysis Intercomparison Project (S-RIP) during 2013-2018

*Masatomo Fujiwara¹, Gloria L. Manney², Lesley Gray³

1. Faculty of Environmental Earth Science, Hokkaido University, 2. NorthWest Research Associates, 3. University of Oxford

The climate research community uses global atmospheric reanalysis data sets to understand a wide range of processes and variability in the atmosphere. Different reanalyses may, however, give very different results for the same diagnostics. The Stratosphere–troposphere Processes And their Role in Climate (SPARC) Reanalysis Intercomparison Project (S-RIP; <https://s-rip.ees.hokudai.ac.jp/>) is a coordinated activity to compare reanalysis data sets using a variety of key diagnostics. The objectives of this project are to identify differences among reanalyses and understand their underlying causes, to provide guidance on appropriate usage of various reanalysis products in scientific studies, particularly those of relevance to SPARC, and to contribute to future improvements in the reanalysis products by establishing collaborative links between reanalysis centres and data users. In the presentation, an overview of the S-RIP activity during 2013-2018 is made, and some scientific highlights are presented and discussed.

Keywords: reanalysis, intercomparison, SPARC