

# **SPARC Reanalysis Intercomparison Project (S-RIP)**

Masatomo FUJIWARA<sup>1</sup>, and the S-RIP Contributors

<sup>1</sup> *Hokkaido University, Sapporo, Japan*

The middle atmosphere and climate community use reanalyses widely to understand atmospheric processes and variability in the middle atmosphere, to validate climate models, and, potentially, for trend analysis. Yet different reanalyses give different results for the same diagnostic. There is thus a need for a coordinated reanalysis intercomparison project that shall start a comprehensive activity to compare all appropriate reanalysis datasets for key diagnostics to help understand the causes of differences and to use the results to provide guidance on appropriate usage of various reanalysis products in scientific studies. In addition, the reanalysis community will benefit from coordinated user feedback, which can lead to improvements in the next generation of reanalysis products. The Stratosphere-troposphere Processes And their Role in Climate (SPARC) Reanalysis Intercomparison Project (S-RIP, <http://s-rip.ees.hokudai.ac.jp/>) is a SPARC activity that was proposed in 2012 and approved in 2014. The goals of S-RIP are: (1) to create a communication platform between the SPARC community and the reanalysis centers; (2) to understand current reanalysis products and to contribute to future reanalysis improvements in the middle atmosphere region; and (3) to write up the results of the reanalysis intercomparison in peer reviewed papers and a SPARC report. The project duration is from 2013 to 2018. In the presentation, an overview of the project is made, with some early intercomparison results.

Key words: reanalysis, comparison, middle atmosphere, SPARC