

Interactive comment on “Temporal and spatial evaluation of satellite-based rainfall estimates across the complex topographical and climatic gradients of Chile” by M. Zambrano-Bigiarini et al.

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1. Although the literature is saturated with articles that validate satellite precipitation products using some ground-based reference, I always welcome this kind of studies, since the use of these products is still limited by the uncertainty associated with them. Moreover, the authors used a complete array of statistics (both continuous and categorical) and focused on a large study area that has not been previously investigated and that presents challenges in satellite precipitation estimation due to its complex terrain. I believe this work addresses issues that are relevant to the HESS readership. The manuscript is well presented and well written. 2. I would encourage the authors to review an article that I recently published in JHM: Maggioni, V., Meyers, P.C. and Robin-

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son, M.D., 2016. A Review of Merged High-Resolution Satellite Precipitation Product Accuracy during the Tropical Rainfall Measuring Mission (TRMM) Era. *Journal of Hydrometeorology*, 17(4), pp.1101-1117. In this article, the authors may find studies that have not cited but that may be relevant to compare their findings with previous work. I would also like to invite the authors to join the International Precipitation Working Group (IPWG), which could largely benefit from their insights on the validation of SRE over mountainous regions in South America. 3. It is my understanding that the authors used the TMPA 3B42 research version and not the real-time in their analysis. Can this be clarified in the text? 4. I would add the information that all SREs were rescaled to a common 25 km grid in the abstract. 5. Table 1 shows that the spatial resolution of CMORPH is 0.25deg, but this product is also available on an 8km grid, as stated in the text. 6. I appreciate the effort of considering several statistical metrics to evaluate the SREs. However, can the author discuss whether all these metrics are necessary to assess the performance of these products? Hossain and Huffman (2008) came up with a list of error metrics for evaluating SREs for hydrological applications. How do the statics introduced by the authors compare to that list?

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