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Interactive Comment

Interactive comment on "Uncertainties in calculating precipitation climatology in East Asia" by J. Kim and S. K. Park

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General Comments I have read the discussion manuscript with the above title. The manuscript deals with a comparison of five gridded precipitation datasets based on raingauge observations in East Asia. Means, interannual variability and long-term linear trends are investigated for the 28 year period from 1980-2007. The manuscript is well written and presents an interesting analysis of precipitation in a region of complex geography. The major finding is that the datasets are in agreement on means and inter-annual variability whilst large uncertainty is found with linear trends. Uncertainties are larger over the drier and mountainous area of the domain perhaps due to sparse observations. However, there seems to be little reference to the datasets in the discus-

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sion and summary, instead focusing on the means, interannual variability and linear trends. I would expect that some datasets agree more than with others.

Specific Comments The datasets are described and cited in Table 1. Three datasets are of the same horizontal resolution (0.5×0.5) whilst the other two have different resolutions. This may not be a sound method for analysis of inter-dataset variability and may affect the calculation of the ensemble reference. But perhaps the starting point should be to show a graph with annual cycles of the five rainfall datasets to show the spread or agreement. Rainfall trends are less certain in many regions of the world and even in IPCC projections. I would suggest to analyze the datasets for trends which are not necessarily linear, for example polynomial trends. In some regions the polynomial trends are more significant than linear trends. Of course, a longer time-series depicts trends better.

Technical Corrections Few typos and language errors can be found in the manuscript. Page 7767, line 4, 'climate' should read 'climates' Page 7767, line 26, delete 'an' Page 7769, line 22, replace 'properties' Page 7774, line 1-4, consider rewording Page 7775, line 2, replace 'is' with 'are' Page 7775, line 10-12 is a repetition of line 5-6 Page 7776, line 5, replace 'is' with 'are'

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 7765, 2015.

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