

Interactive comment on “PREGRIDBAL 1.0: towards a high resolution rainfall atlas for the Balearic Islands (1950–2009)” by Toni López Mayol et al.

Anonymous Referee #1

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The topic of this paper is interesting and the new product presented is important, however there are some important issues to be addressed before it can be considered for publication.

One of my main concern is that in the paper the authors do not provide a satisfactory quality analysis of the data. In fact, the authors just write that “In this study all available data from 1914 to 2009 have been used, applying a basic quality control so as to eliminate non-physical precipitation values”. What kind of analysis has been applied? Quality control and homogenization of the climate series are necessary to guarantee a reliable analysis. The authors must solve homogeneity problems with the application of a homogenization procedure before the spatial interpolation of the data.

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At present, among the various methods to solve homogeneity problems, there is not a single objective one, and the choice of the most suitable procedure is strictly related to the dataset characteristics (metadata availability, station density, and so on) and to the region examined. So the authors, before every statistical test, should choose and apply a homogenization approach to verify data quality, (see Brunetti et al. 2012 as an example)

Brunetti, M., Caloiero, T., Coscarelli, R., Gullà, G., Nanni, T., Simolo, C. Precipitation variability and change in the Calabria region (Italy) from a high resolution daily dataset, *International Journal of Climatology* 32 (1), 57-73, 2012.

As regards the trend analysis, why have “not significant” trend values been discussed? A non significant trend either positive or negative has the same meaning as “not different from zero”. Recommendation: avoid non-significant trends discussion in the text.

Authors explain they used ordinary kriging to interpolate site data to a grid. They mention that previous studies used multiparametric interpolation including height, sea distance, etc.. Did authors include this information in the presented analysis? Or it was not necessary. I would appreciate some comments regarding this topic.

Authors say that only 4 stations were available in 1914. It's not clear if these data were used for detecting trend. I think variance is very high when only few stations are used to reconstruct a field. Can this affect trend result?

I am not English native speaker but I would appreciate a deep review of language.

Some specific comments in the supplement to this comment.

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-330/nhess-2016-330-RC1-supplement.pdf>

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