

Interactive comment on “Dynamic variability examination of Mediterranean frontogenesis: teleconnection of fronts and flood 2010” by B. A. Munir et al.

Anonymous Referee #3

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In this study, authors use an improved scheme for the detection of Mediterranean frontal activities, based on the identification of cloud pattern, thermal gradient and water content of air masses in Meteosat-7 satellite imagery. The study is conducted over 1.5 years. The flood in 2010 over some areas of Pakistan is analyzed in connection with these fronts. In its present form, the manuscript is extremely vague regarding the method, the presentation of the results, and even the conclusion. More details can be found below. Also some figures should be more focused as well as the captions, otherwise the reader gets lost. I therefore recommend major revision before the paper can be accepted.

- regarding the method : There is no information about the classification method which

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is employed : which channels are considered, how, what are the values of the thresholds (if any) ? I would like to see at least one result of the classification (more precise than just figure 2) to try to figure out how it works. It is important since authors mention that they use an improved algorithm. Please specify what is the nature of the improvement and how it has impacted the results of the study. What is the effect of the distortion for the considered latitudes ? In the same way, authors say that they use TRMM for looking at rainfall (I think that the term trend is misused here). But there are several different TRMM products, so which one has been used ?

- regarding the results : It is not always clear if the points which are discussed are direct results of this study or are general statements. This is especially true for Section 3.1. Therefore I would recommend that the authors reorganize the presentation in order to clarify it. Also Figure 3 represents an extremy vast area, I am not totally convinced that this is useful.

- regarding the last section : I am not sure that the first 4 points are really a result of the study, to me they look more like generalities. The main result is probably point 5, but in its present form, it does not provide a full summary of the results of the paper.

Some other points :

- Page 4, line 17-18 : Authours claim that the Mediterranean frontogenesis shows a direct impact on the European and Asian weather : Please be more specific.

- Page 5, lines 4-6 : is this information necessary ?

- Page 8 : Authors say that the result shows dynamicity of frontogenesis for years 2010 and 2011. Where do I see these results, on which figure ?

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