

Interactive comment on “Technical note: Space-time analysis of rainfall extremes in Italy: clues from a reconciled dataset” by Andrea Libertino et al.

Anonymous Referee #4

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This technical note describes a unique extreme rainfall dataset (I-RED) that was compiled for Italy. The introduction nicely explains the complexities of the rainfall data records in Italy and the necessity for a unified dataset. The labor involved in creating such a dataset is appreciated and will be valuable for future research. The I-RED compilation methods is described relatively well, and some initial results are briefly discussed; however, I believe minor revisions are necessary to close some open questions that a reader may have about the dataset. Specific comments are below.

1) Some discussion is needed on how the rainfall data at these stations is collected, as well as how the practice of recording rainfall data over time may have changed.

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For example, there may be some stations that reported 24 h rainfall totals for a longer period of time than 1 h rainfall recordings. This additional discussion could be aided by a plot similar to Figure 2d for the shortest (1 h) and longest (24 h) durations. Information on the types of gauges at these stations could be critical to understanding how capable the dataset is at capturing the most extreme rainfall amounts.

2) Page 3 Lines 14-15: How frequently were data types (b) and (c) inconsistent with one another, and what would be the source of this inconsistency if it's the same station?

3) Figure 2 (b) and (c): These histograms look identical. Is it true that the same number of stations that reported 24 h rainfall also reported 1 h rainfall?

4) Table 1: It is unclear what “under request” means here. Does it mean “available upon request”?

5) There are a few typos in the paper, including the following: Page 1 Line 24: “dismantledment” should be “dismantlement”, Page 1 Line 25: “stucked” should be “stuck”, Page 2 Line 2: “metodologies” should be “methodologies”.

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