

Interactive comment on “Inferences on weather extremes and weather-related disasters: a review of statistical methods” by H. Visser and A. C. Petersen

Anonymous Referee #1

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General comments

The statistical analysis of weather extremes and weather-related disasters is clearly an important area of research and one that has utilised a wide range of techniques, some more suitable than others. This paper provides a useful survey of these techniques and methods and, in particular, points out when, and under what circumstances, particular methods are appropriate and when they are not.

Specific comments

Pages 2895, 2909: The discussion between Wigley (2009) and Cooley (2009) on modelling weather extremes is referred to several times, but they were originally published
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some 20 years earlier. Perhaps some comment can be made on this and why these papers are still germane to the debate.

Section 5: the fact that the trend method actually employed will often influence the interpretation of the trend patterns observed in extremes is an important point that could perhaps be given greater emphasis in the discussion.

Section 6: this is an important section containing some important conclusions. As a 'lay reader' in this area, I feel that the paper would be enhanced by a more extended discussion of these issues.

Technical corrections

One failing of the paper is that it contains a large number of typos and examples of 'clunky' drafting. Without claiming to be by any means exhaustive, please note the following:

p.2895, l.29: delete 'made either' p.2897, l.1: replace 'is' by 'are'. p.2898, l.3: replace 'In case of ' with 'In terms of'. p.2898, l.19: 'one-step' not 'on-step'. p.2899, l.11: 'recurring' not 'returning'. p.2900, l.18: 'fits' not 'estimates'. p.2902, l.10: delete 'apart'. p.2904, l.2: 'in' not 'into' p.2904, l.4: 'integrated' not 'integrate'. p.2905, l.13: 'fit' not 'fitted'. p.2905, l.16: 'albeit' not 'be it'. p.2905, l.19: no reference provided for Wang and Swail. p.2907, l.11: 'when' not 'while'. p.2908, l.10: ditto. p.2908, l.18: 'are' not 'is'. p.2908, l.23: reference missing. p.2908, l.24-25: replace 'a stable behavior over the block period chosen, the choice for stationarity satisfies' with 'stable behavior over the block period chosen, the choice of stationarity is satisfactory'. p.2909, l.18: insert 'of' before 'which'. p.2911, l.10: 'distributions' (plural). p.2912, l.13: 'to' not 'for'. p.2912, l.18: delete 'as'. p.2914, l.20: 'non-normally'. p.2915, l.9: 'significantly'. p.2917, l.23: delete 'as'. p.2917, l.24: replace 'for' by 'of'. p.2917, l.25: ditto. p.2918, l.3: delete 'while'; delete 'for'. p.2918, l.8: delete 'to'. p.2918, l.19: 'difference'. p.2918, l.24: delete 'as'. p.2919, l.6: replace 'allow to give a clue for' with 'apply to'.

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