

Interactive comment on “Scaling and trends of hourly precipitation extremes in two different climate zones – Hong Kong and the Netherlands” by G. Lenderink et al.

G. Lenderink et al.

lenderin@knmi.nl

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Referee one:

We would like to thank the referee for his comments

General comments:

* Comment on how taking hourly dew point temperature from 2 and 4 hours before each precipitation events affects the results.

This point has already been answered in our response on 11 July 2011. We decided
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to add these plots to the main paper (figure 3), and added text explaining the results. In general, the results of 2 and 4 hours before are rather similar for both HKO and NL, with a small improvement in the latter. Results from “0” hours show deviations for the highest temperature range.

* Remark about data quality

We added a section to the supplement (sect. a) to discuss data quality. In summary, all data is provided by the meteorological service, and the observing systems are according to high (WMO or institutional) standards. Homogeneities test have been conducted on part of the data, and a few additional quality tests have been applied.

Specific comments:

* Wong et al. (2011). Reference changed.

* Remark about binning technique.

We added “Bins are overlapping with steps of one degree; this is done to avoid a dependency of the appearance of the plots on the arbitrary choice of the binning intervals, which sometimes occurs when the amount of observations is limited. With the pooled data from The Netherlands (NL, >400 years of hourly data) very similar are obtained with a bin width of 1 C, but with the data from HKO the number of precipitation events in a bin of 1C becomes to limited to reliably computed the extremes.

* Added “probability [0..1]” to the y-axis.

* Added colors to the figure caption of Fig. 3.

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