

Dear Dr. Dmitri Kondrashov

Thank you very much for providing your valuable comments to our manuscript.

Dr. Kondrashov's comment:

*I am simply not convinced by this paper, it is very short with one figure and is not up to the standards and depth expected for NPG. Authors need to heavily revise and extend the manuscript to improve presentation and their arguments. Hopefully my comments below are helpful.*

Our response:

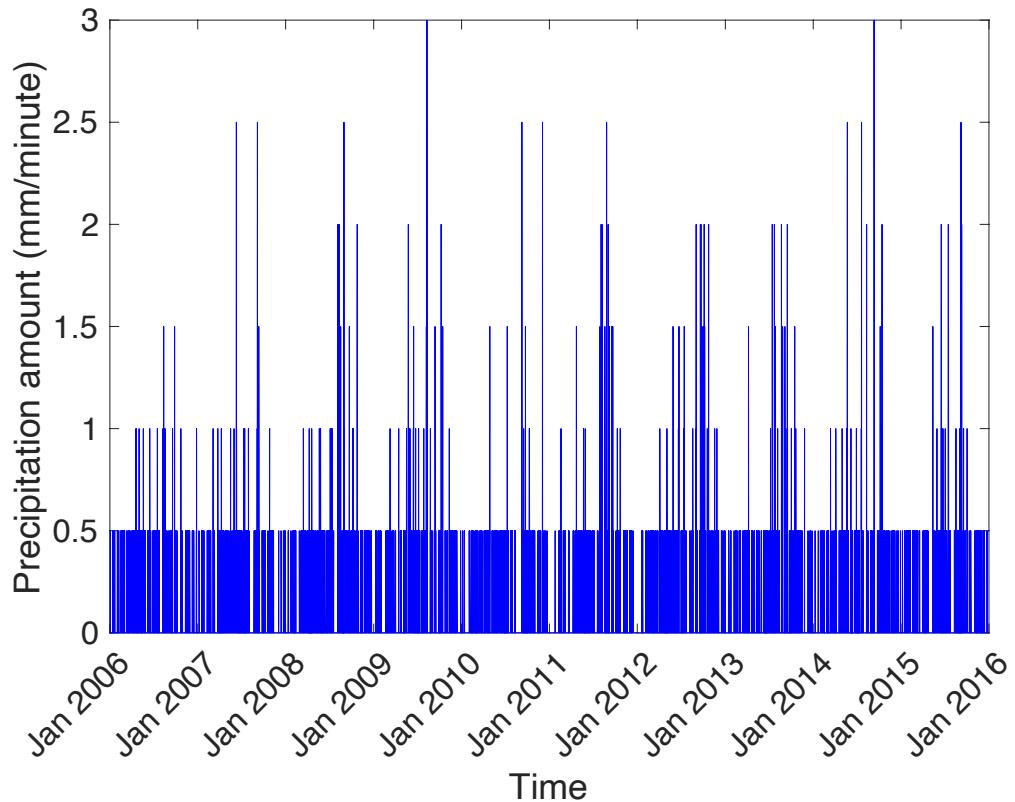
Thank you very much for your opinion. Our intention of the current manuscript is to provide a simple fact that time series forecasting of precipitation may be improved just by conditioning the past data. The Improvement of short-range forecasts of precipitation is very important mainly from the viewpoint of disaster prevention, the concrete methods for such improvements have not, however, been established yet. This paper proposed a better solution. We do not mean to argue its underlying mechanism, as stated in the paper. We believe that the mechanism should be investigated later by the other experts by employing their expertise.

Dr. Kondrashov's comment:

*The authors argue that short-term (2hr ahead) time series prediction for precipitation at Tokyo station in 1-min sampling can be improved by using data two weeks in the past and some form of analogs method. This is similar to looking for needle in a haystack and I find it very doubtful without additional analysis and presentation. First of all it would be helpful to show time series.*

Our response:

Please find the attached additional figure for the time series.



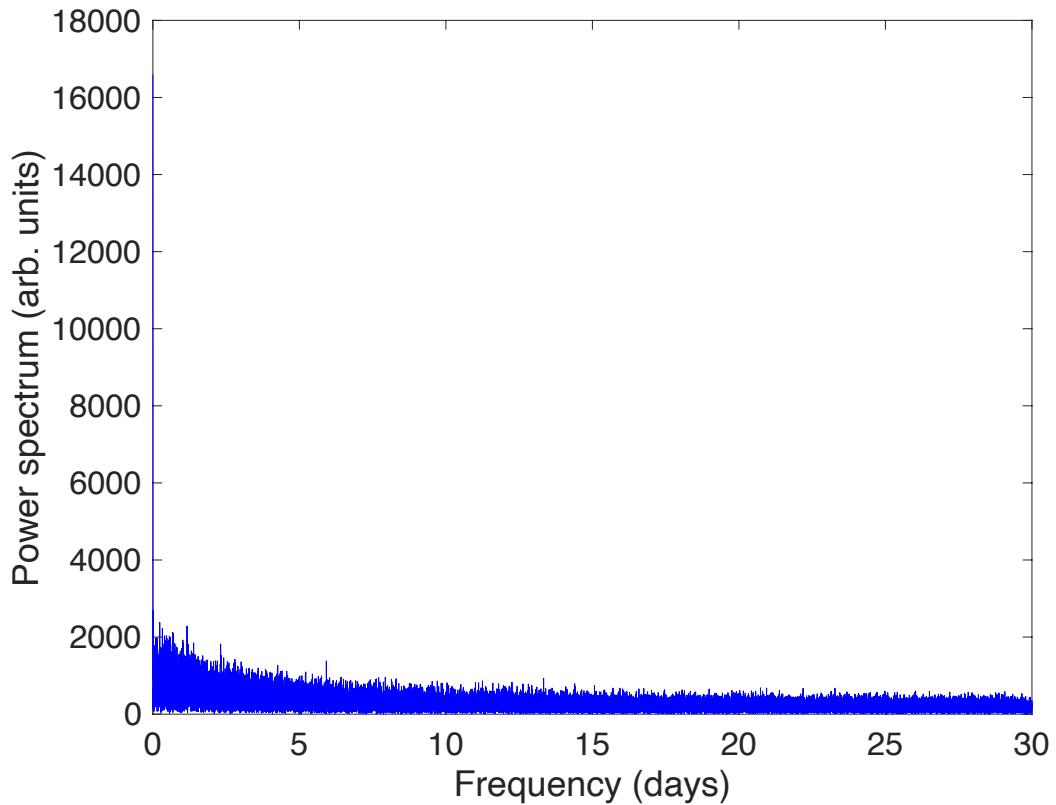
Additional Figure 1 | Time series of precipitation between 2006 and 2015

Dr. Kondrashov's comment:

*Secondly, are there any periodicities in the time series itself by using classical spectral analysis methods?*

Our response:

Please find the power spectrum of the precipitation as the second attached file. The power spectrum does not show a particular peak or some.



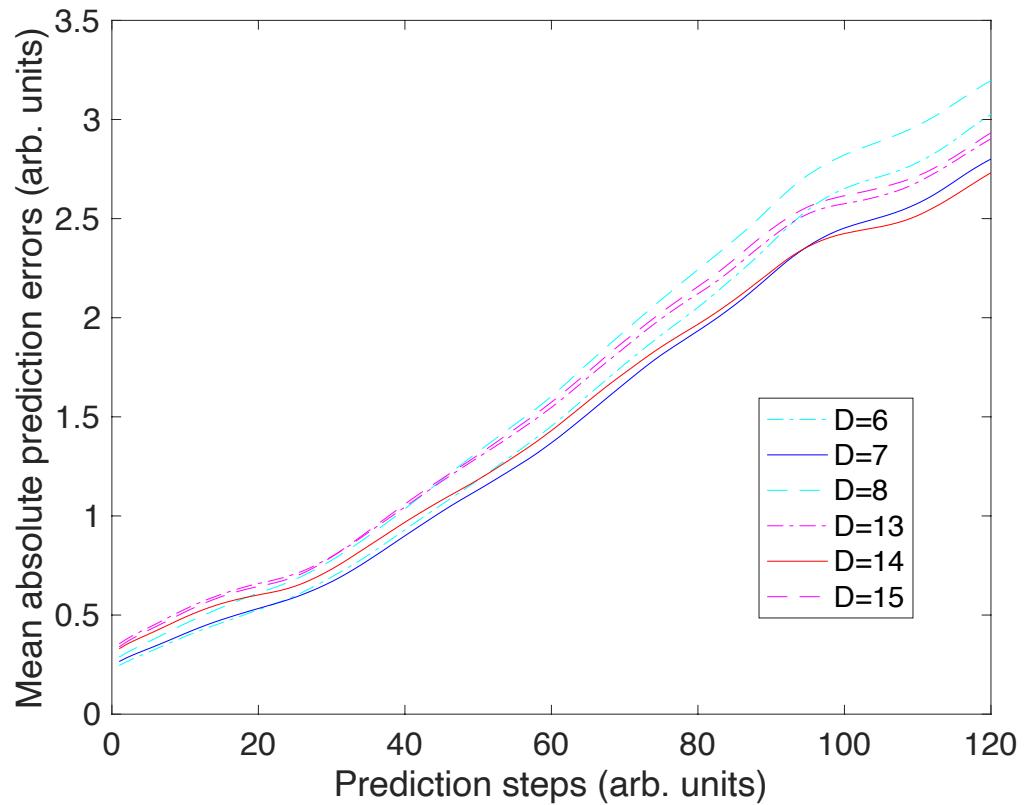
Additional Figure 2 | Power spectrum of the time series of precipitation

Dr. Kondrashov's comment:

*Finally, they should think on how to better present and illustrate their prediction method, perhaps using some toy model data, not simply as a short appendix.*

Our response:

Please find our third additional figure, which shows the results on the Rössler model forced by a periodic signal with period of "14 days". Then, we found that the time series prediction taking into account 14 day periodicity shows the better performance than those with 13 or 15 day periodicity, while the time series prediction with 7 day periodicity is competitive with that of 14 day periodicity. I hope that this toy example help you and the other readers understand our findings.



Additional Figure 3 | Prediction errors for the Rössler model by taking into account the various potential periodicities  $D$ .