

Response to reviewer comments

We are sincerely grateful to editor and reviewers for their valuable time spent on reviewing our manuscript. The comments are very helpful and valuable, and we have addressed some issues raised by the reviewers in the revised manuscript. Please find our point-by-point response (in blue font) to the comments (in black font) raised by reviewers.

Reviewer 2

This study compared three wind speed distributions of kernel, Weibull, and Rayleigh type for estimating average wind power density under varied desert steppe terrain contexts. Three key parameters of scale factor (c) and shape factor(k) from the Weibull model and surface roughness (z_0) were investigated for estimating wind energy resource. Authors pointed that the key parameters (c , k , and z_0) should be accurately considered for estimating wind energy resources under varied desert steppe terrain contexts. The work is interesting and informative for wind energy evaluation. The manuscript is well organized but need proofreading by native speakers. I recommend minor revision.

Response: Many thanks for your positive comments. We are very grateful for all the constructive comments and suggestions. We have adopted all the suggestions in our revised manuscript.

Line 52. Citations format. “(Chang, 2011a) used six ...” should be “Chang (2011a) used six ...”. The same for other citations.

Response: Many thanks for your kind suggestion. Amended.

Line 116. Change “The average daily wind speed” to “The daily averaged wind speed”.

Response: Many thanks for your kind suggestion. Amended.

Line 200. I think your precision is too high here. A single decimal place is probably all you can state here. The same for line 218.

Response: Many thanks for your kind suggestion. Amended.

Table 1 and 2. What is the information of the shading. In fact, it is hard for readers to get information from this kind of table.

Response: Thanks for your question. Because table 1 and table 2 are relatively long, the shades of red and blue can be used to represent the size of the value. The red shading and blue shading represent the larger and smaller values in the table, respectively. The darker the color, the more extreme the value. It is convenient to compare with Figure 4 and Figure 6, for example, the size of the scale factor c in

Figure 4 represents the approximate position of the probability density maximum value of the distribution curve.

Figure 2c. A curve of monthly averaged wind speed added is more informative.

Response: Thank you very much for your kind suggestion, we have added a curve of monthly averaged wind speed as following.

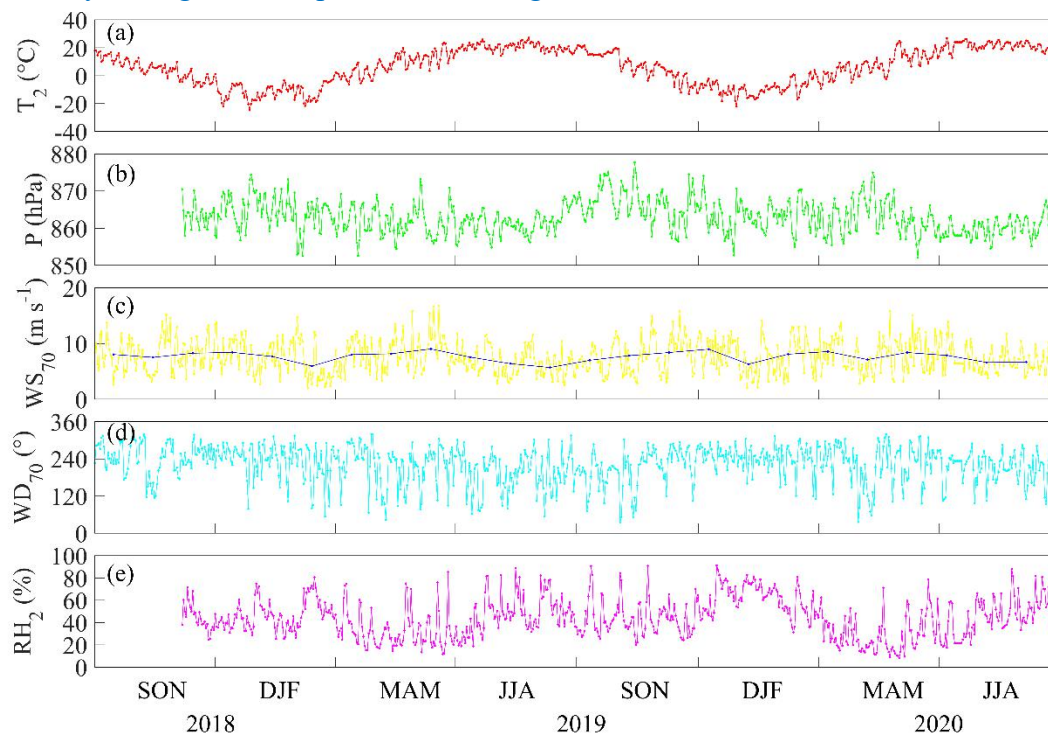


Figure 4. The x-label should be WS70 (m s-1). Season and year information should be texted in each plot.

Response: Many thanks for your kind suggestion. Amended.

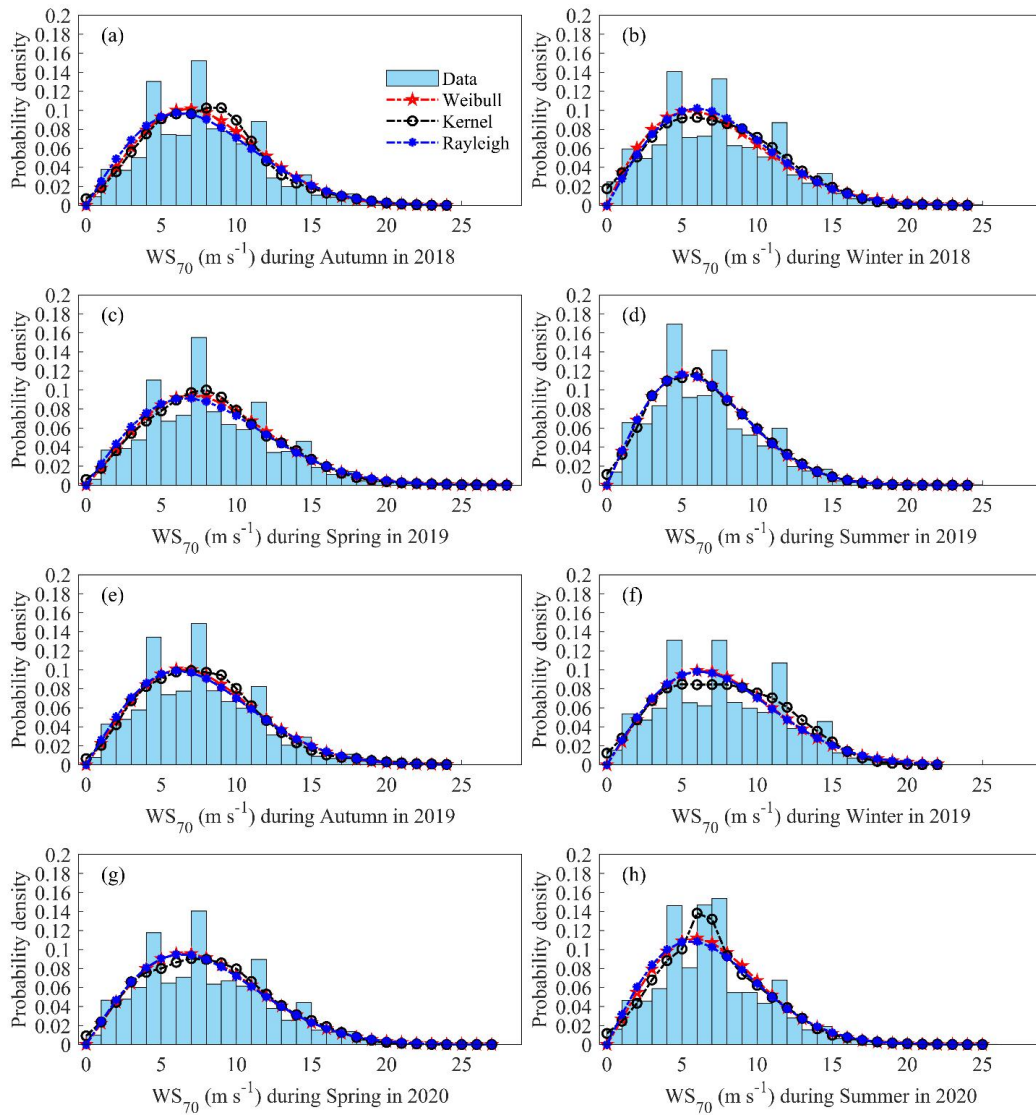


Figure 5. No need to give x-axis tick-labels in every plot as all plots used one x-axis. The font size need to be unified for all the labels. The word “period” is not needed.

Response: Thanks for your suggestions. Amended.

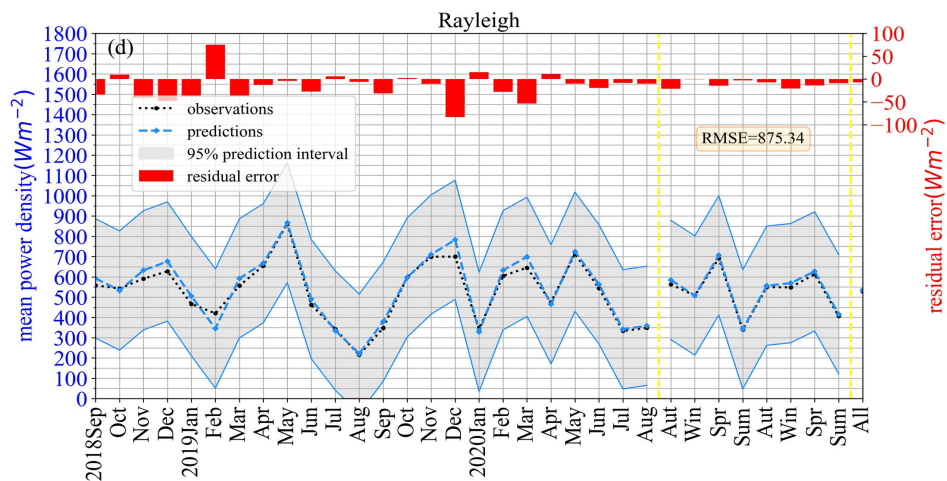
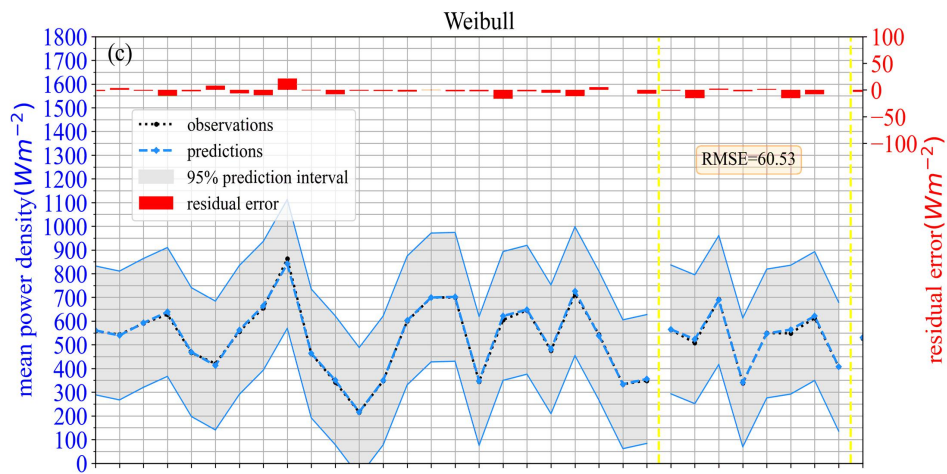
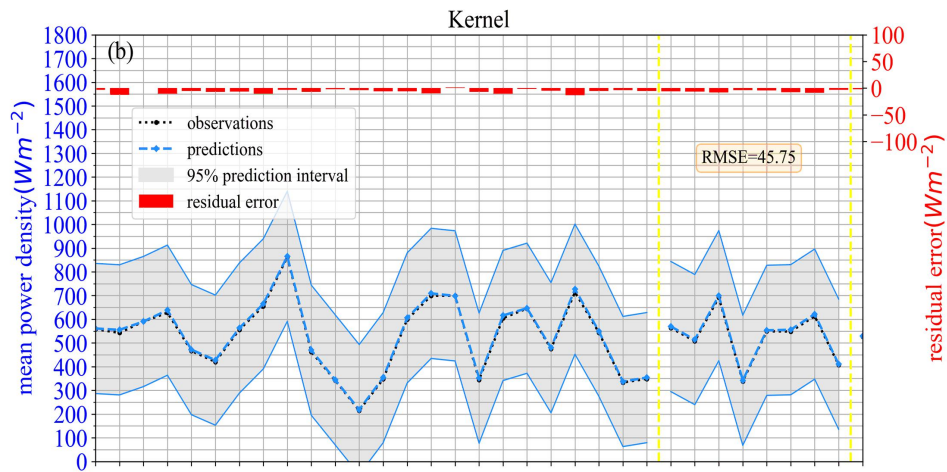
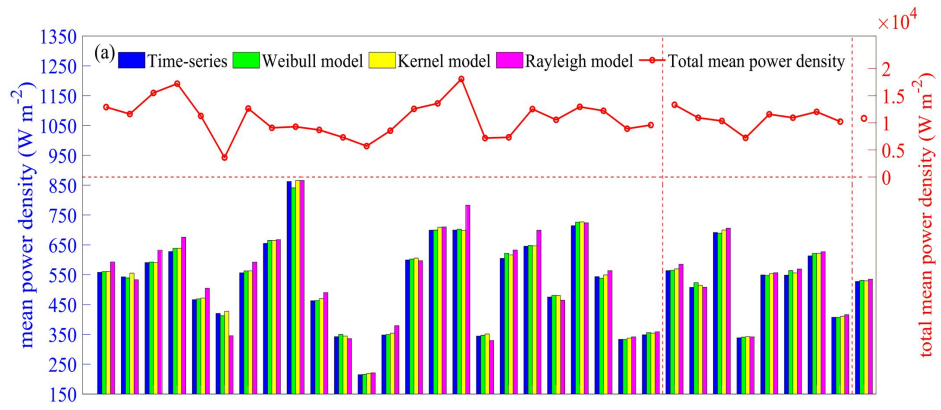


Figure 6. The x-label is not “Altitude”, it should be Height (above the ground level). What is the unit for x-label? The x-tick label should be 10, 20, 30, 40, ... , 100.

Response: Thanks for your suggestion. Amended.

