

Response to reviews

Dear editor, we tried to apply all the referee recommendations. Following are the relevant changes in the manuscript.

- 1) As advised by the referee, the introduction was reduced to focus on the wind speed modelling. Some contributions were added;
- 2) A LSTM schematical diagram (Fig. 1) and a table with the LSTM arguments were included (Table A2);
- 3) Data availability was added (Table A3)
- 4) Section 2.5 was reduced, as recommended
- 5) Wind roses include the “%” signal
- 6) Root Mean Squared Error (RMSE) was added to tables 2, 3 and 4
- 7) Wind direction temporal series were added to illustrate the diurnal cycle (Fig. A1, A2, A3)
- 8) Seasonal wind roses were added (Fig. A4)
- 9) RMSE and MAE were included as subplots of Fig. 6, 7, 8
- 10) R^2 Error bars are shown in Fig. A5, A6 and A7, for better visualization
- 11) Section 3.2, lines 303 – 314 explain the results from the tests done with samples beyond the validation dataset. Fig. A8 shows the test results from the LSTM. The windshear coefficient (α) was computed taking 40 and 60 m wind speed. Afterwards, the PL was estimated. Results also are shown in Fig. A8.