



EGUsphere, community comment CC1  
<https://doi.org/10.5194/egusphere-2022-578-CC1>, 2022  
© Author(s) 2022. This work is distributed under  
the Creative Commons Attribution 4.0 License.

## **Comment on egusphere-2022-578**

Hua Lin

---

Community comment on "A deep learning approach to increase the value of satellite data for PM2.5 monitoring in China" by Bo Li et al., EGU sphere,  
<https://doi.org/10.5194/egusphere-2022-578-CC1>, 2022

---

This study reported a study about obtaining the near-ground PM2.5 concentrations from satellite observation via deep learning method. The demonstration and verification of the article are sufficient for me. But, I still have several questions about this research:

- 1, The filtering method utilized in CNEMC dataset should be introduced in the manuscript. Besides, I wonder how the filtered data affect the results?
- 2, What factors affect the training efficiency of ST-NN model? Does different learning rate have significant effect on training efficiency? How do you choose the learning rate?
- 3, Whether different optimizers affect the results? (SGD,Adam)

I find some typos in the Supplement:

Table. S10 spot and leisure services -> sport and leisure services

Table. S13 Rate (%) -> Rate