

## ***Interactive comment on “A homogenized daily *in situ* PM<sub>2.5</sub> concentration dataset from national air quality monitoring network in China” by Kaixu Bai et al.***

### **Anonymous Referee #1**

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The PM<sub>2.5</sub> data has been widely used for human exposure risk assessment and air quality management. However, as the author said, given the absence of an open access and quality assured *in situ* PM<sub>2.5</sub> concentration dataset in China, it is urgent need to open a stable and reliable PM<sub>2.5</sub> data access method. This paper attempted to generate a long-term coherent *in situ* PM<sub>2.5</sub> concentration dataset for scientific community to use in future applications. Methods involving missing value reconstruction, change point detection, and bias adjustment were applied sequentially to deal with data gaps and inhomogeneities in raw PM<sub>2.5</sub> observations. It is a nice and well-organized paper with a clear focus. In my opinion, there are some minor problems need to be solved before publishing.

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My biggest concern is whether the data set will continue to be updated. I suggest that the author add a statement in the conclusion, stating the update frequency and download link of the homogenized PM<sub>2.5</sub> datasets.

In the change points detection, how long is the breakpoint interval?

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