

Interactive comment on “Air quality in the middle and lower reaches of the Yangtze River channel: A cruise campaign” by Zhong Li et al.

Anonymous Referee #1

Received and published: 26 June 2018

General comment: This manuscripts aims to provide a good picture of air pollution in the Mid-Lower Reaches Yangtze River (MLYR) based on a 15-day cruise campaign in winter of 2015. With chemical speciation data from filter samples, sources impacting the MLYR region are discussed including coal combustion, ship emission, biomass burning etc. Although these are important data, there are still some limitations of this work. One is the number of samples is limited, and the other is that in the data analysis section, it is pretty descriptive. Instead, there should be more in-depth discussion and it should be more logic and structured. With the current information provided in the manuscript, it is hard to draw firm conclusions. Therefore, I suggest the authors to revise the manuscript with in-depth data analysis and provide clear and new conclusions.

Specific comments:

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1) Why is levoglucosan from satellite data instead of from filter samples? What about the spatial resolution of satellite data? The authors indicate that biomass burning may make a big contribution to rural area. It will be more interesting to know the quantitative contribution from biomass burning. 2) The influence of ship emission on PM_{2.5} in urban city is an important question. The authors claim that the ship plume could contribute to more than 50% of the total PM_{2.5} in the Shanghai ports. As there are quite a few assumptions, how to validate such result (50% of the total PM_{2.5})? 3) There are many typos in the manuscript and it requires careful revision. It is clear that there is a need to improve English in the manuscript.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2018-225>, 2018.

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