

Atmos. Chem. Phys. Discuss., author comment AC1  
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## Reply on CC1

Pak Lun Fung et al.

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Author comment on "Input-adaptive linear mixed-effects model for estimating alveolar lung-deposited surface area (LDSA) using multipollutant datasets" by Pak Lun Fung et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-427-AC1>, 2021

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Thank you for the comment. We now list some examples of using mixed effects model to estimate pollutants, including aerosol number concentration, in the text. For the automation part, I understand that the selection of input variables would potentially create biases. To take that into account, we calculated the variance inflation factor (VIF) for each combination of input variables and the sub-models with strong multi-collinearity among the fixed parameters will be rejected. Another test that we ran is Kolmogorov-Smirnov (K-S) test. Any sub-models violating the normality assumption of residuals will be rejected too.