Comment on egusphere-2022-117
Anonymous Referee #1

This study attempts to apply multivariate curve resolution alternating least squares with quadrilinearity constraints to handle complex and incomplete four-way atmospheric data sets. Three air pollutants including nitrogen dioxide, ozone and particular matter in eight sampling stations located in Barcelona metropolitan area other parts of Catalonia during the COVID-19 lockdown (2020) with respect to previous years (2018 and 2019) are used for analysis. The new method indeed generates an interesting result, which has been well interpreted. Overall, the manuscript is well written and worthy of publication. However, this reviewer disagrees on one issue, i.e., estimation of missing data always suffered from uncertainties, whatever any approach to be used. The uncertainty should be included in data interpretation.