

Article: How weather events modify aerosol particle size distributions in the Amazon boundary layer by Luiz A. T. Machado et al.- ACPD 2021314.

Dear Editor Prof. Ken Carslaw,

Thanks for helping make this sentence more exact!

I hope now I have clarified what I was trying to say; please see the text below I changed in the manuscript in the Conclusions:

Finally, the vertical distribution of the vertical velocity was computed using the radar wind profiler at the ATTO-Campina site. The data were collected in the season of the most intense convective activity (October – December) and show that downdrafts are mainly located below 10 km, while the layer of maximum concentration of UFP is mainly above 10 km. However, if even a fraction of UFP from the middle levels of the troposphere is advected downward, it could support the concentration of UFP in the surface observed during convective events. The NUFP in the upper troposphere is several orders of magnitude higher than at the surface, but in the middle level of the atmosphere, there is still have a concentration of UFP larger than on the surface. The source of the UFP at the surface during convective events is still an open question because there is also the mechanism of particle formation related to the increase of OH and NO_x during convective events.