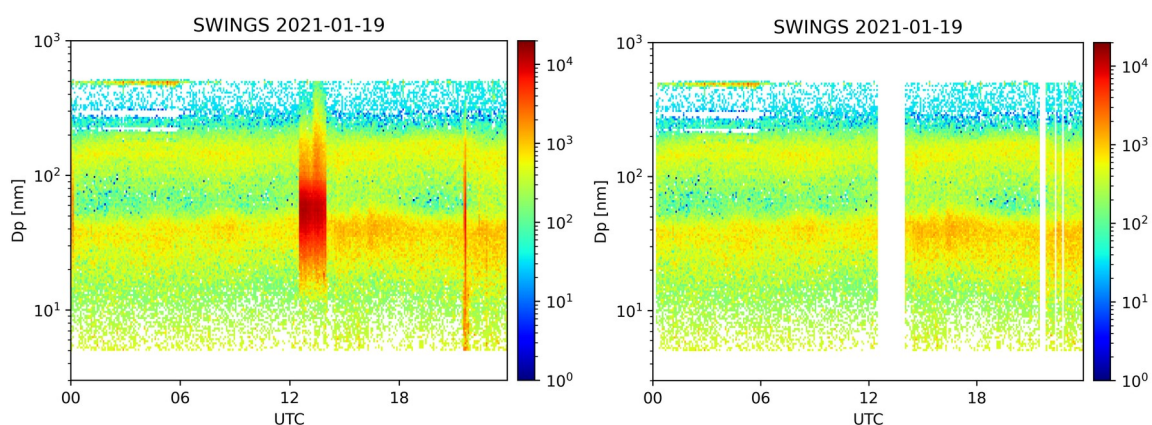


Example of SMPS filtered by the PI

This figure shows an example of data filtered by the PI. On the left, the SMPS size distribution on the 19 January, 2021. Strong peaks of concentration still present after the dynamical and chemical filters. These concentrations are homogeneous upon a large range of bins. On the right, the data used in the paper.

By experience, this sudden increase does not have the shape of a nucleation peak and can only come from a local source of pollution from activities on the ship. The PI therefore added a warning flag to the dataset and these data were not used in the article.



OPC-N3 comparisons

The monthly average of PM_{2.5} mass concentrations of the 3 OPC-N3 were compared over one year (June 2021 to June 2022).

Apart from OPC-N3 N°3 in October 2021 which underestimates the PM_{2.5} concentration by 20 µg/m³ compared to the other two instruments, the difference between the three instruments is less than 10 µg/m³. The average relative errors are 1.7% between OPC-N3 N°1 and OPC-N3 N°2, 9% between OPC-N3 N°1 and OPC-N3 N°3 and 7.3% between OPC-N3 N°2 and OPC-N3 N°3.

In the paper we have used the data of the OPC-N3 N°1 which is close to the data of the OPC-N3 N°2 (see below).

These explanations and the figure have been added as supplement.

