

This manuscript investigates the transport of volcanic aerosol plumes from Hunga eruption to the Northern Hemisphere and assesses their radiative forcing. It also presents an in situ observation of the Hunga Plumes over Reims, France, on 19 October 2022. The findings highlight significant radiative impact on the Northern Hemisphere, underscoring the worldwide influence of the Hunga eruption in 2022. We found this article very interesting.

We would like to share some additional information with the authors regarding ground-based lidar observations conducted at our site in Central China. Our lidar station, located in Wuhan (30.5° N, 114.4° E), has previously detected several transported volcanic aerosol and wildfire smoke plumes (Jing et al., 2023; He et al., 2024; Fu et al., 2026). During 10-12 April 2022, our lidar observed the Hunga volcanic aerosol plume at altitudes of 23 – 25 km, with particle backscatter coefficients ranging from 0.04 to 0.14 $\text{Mm}^{-1} \text{sr}^{-1}$ (see figure below). The timing and altitude of our observations are consistent with those reported by Bian et al. (2023), although our measurements occurred slightly later, as their site in Lijiang, China, is located upstream of ours. Our observation has not been published elsewhere; nonetheless, we believe it may serve as a useful supplement to the ongoing documentation of Hunga volcanic aerosols in the Northern Hemisphere and offer it here for the authors' reference.

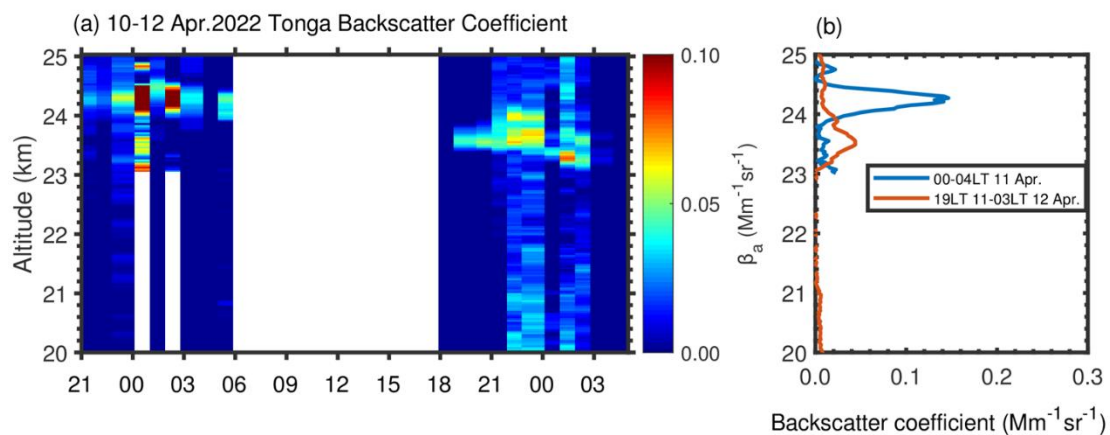


Figure 1 (a) Nighttime particle backscatter coefficient of Hunga volcanic aerosols over Wuhan on 10-12 April 2022. White stripes represent unavailable data due to unfavorable weather conditions or hardware maintenance. (b) The particle backscatter coefficient profiles derived by polarization lidar observations over Wuhan.

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