

Supporting Information for “A Case Study of the Effects of Aerosols on South China Convective Precipitation Forecast”

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Table S1. WRF configuration for the simulations.

Parameterization	Scheme
Initial and boundary condition	ECMWF Reanalysis V5 (ERA5)
Microphysics	Thomson aerosol-aware
Long-wave radiation	RRTM
Short-wave radiation	RRTM
Surface	Noah Land Surface Model
PBL	ACM2



for 12:00 UTC, June 26 to 28, 2022.

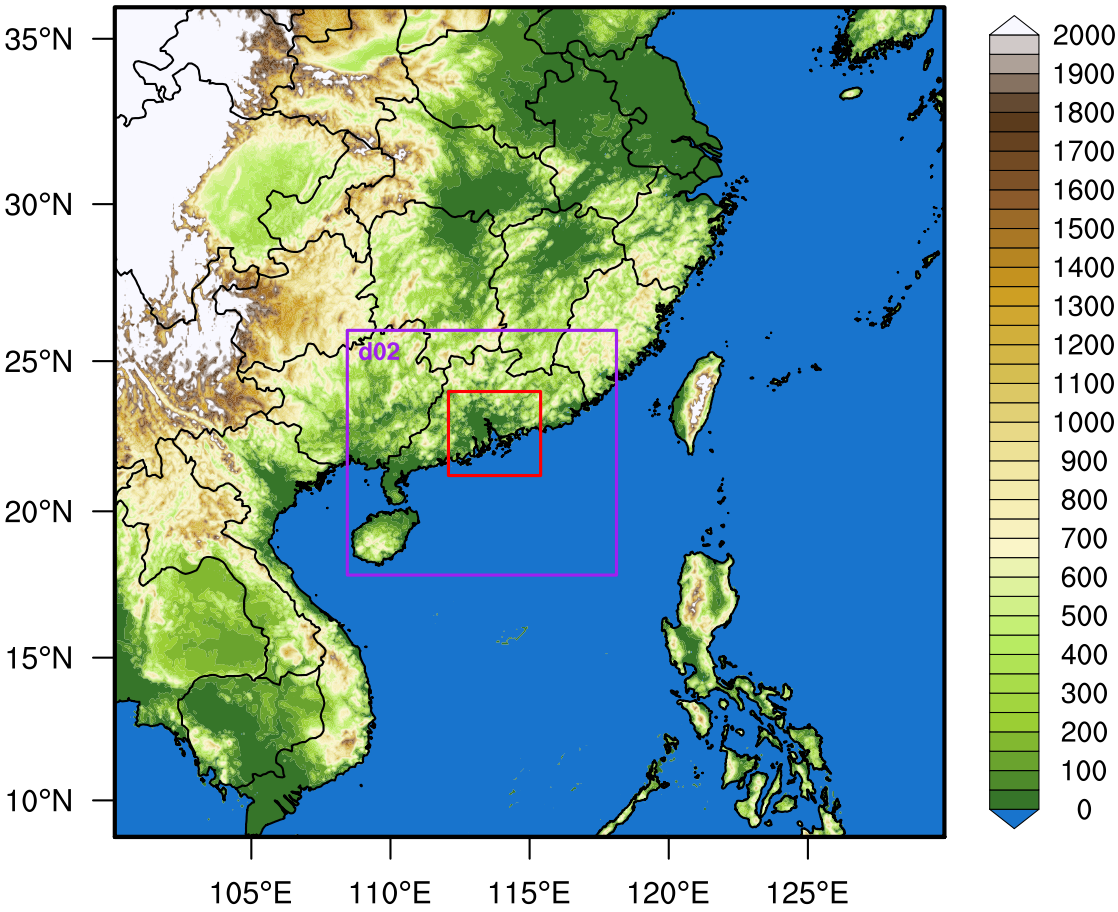


Figure S2. The three nested domains with horizontal grid resolutions of 9km, 3km and 1km.

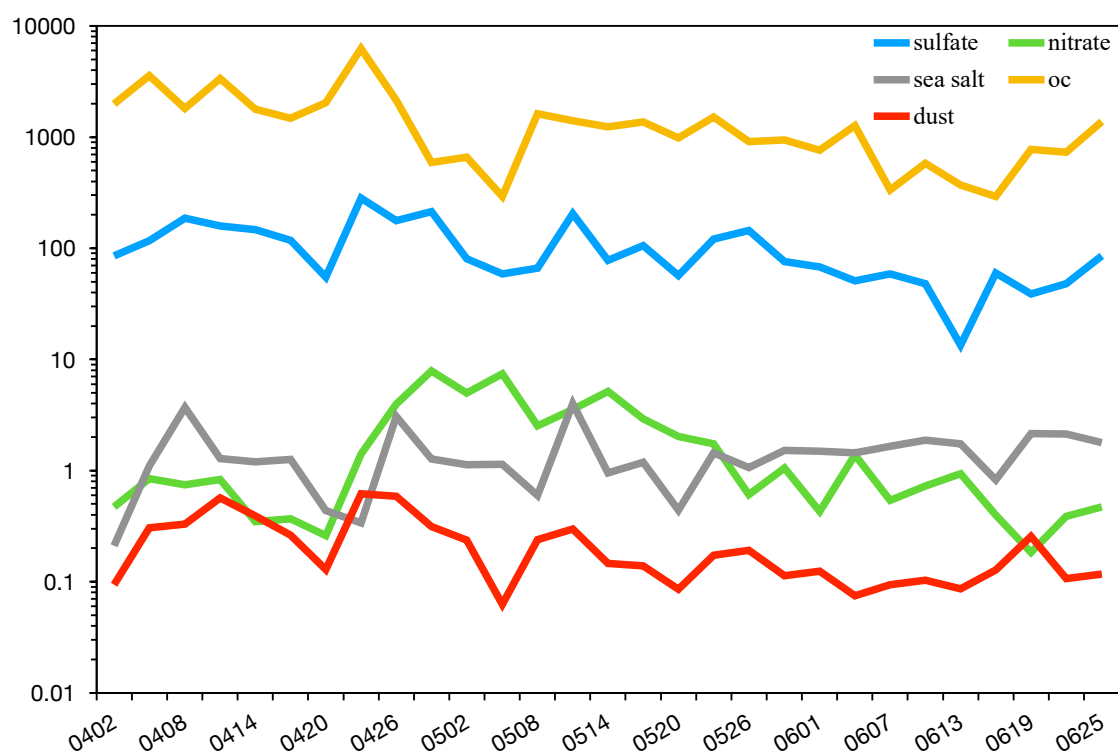


Figure S3. The number concentration (cm^{-3}) of the water-friendly aerosols: sulfate (blue), nitrate (green), sea salt (grey), organic carbon (OC) (yellow) and ice-friendly aerosols: dust (red) from 2 April 2020 to 25 June for every three days.

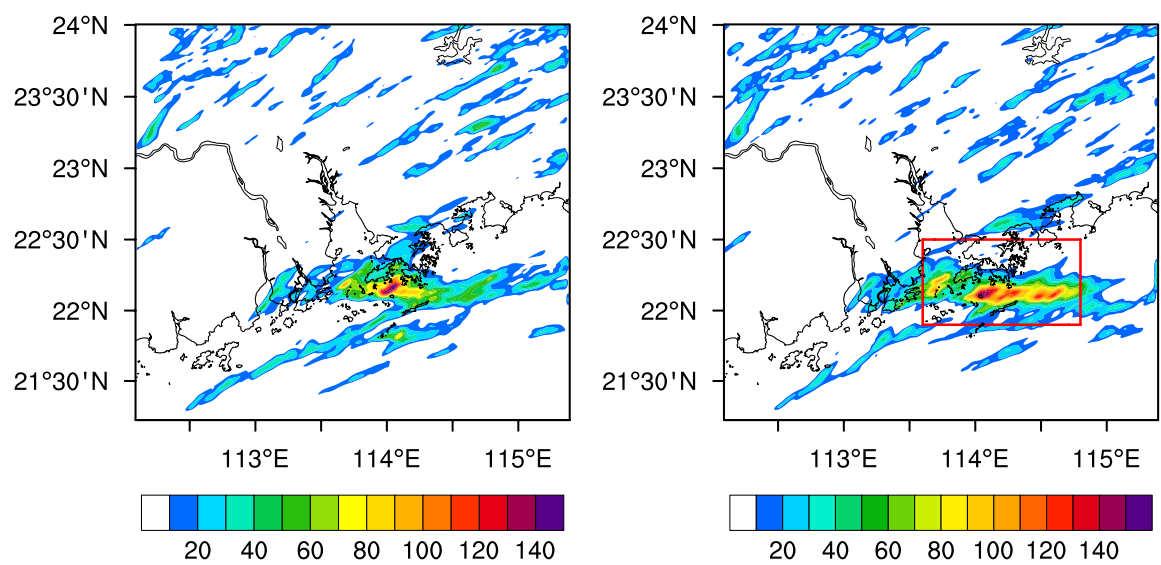


Figure S4. Accumulated precipitation from 12 UTC, 27 June to 06 UTC, 28 June: (a) WmaxImax, (b) WminImin. The red box denotes the main precipitation area in the domain.