Spatiotemporal Patterns and Quantitative Analysis of Factors Influencing Surface Ozone over East China

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Tables: 1
Figures: 1

Table S1. A brief summary of datasets used in this study.

Data set name	abbreviation	Type	Unit	Spatial resolution	Temporal resolution	Source
Surface ozone	$O_{3\text{-surface}}$	Surface	$\mu g/m^3$	/	hourly	CNEMC
NO_2	$CAMS\text{-}NO_2$	mass fraction in air	kg/kg	0.75°×0.75°	3-hour	CAMS
NO_2	$NO_{2\text{- S5P}}$	tropospheric column density	mol/m^2	7km×3.5km	daily	S5P-TROPOMI
HCHO	$HCHO_{\text{-CAMS}}$	total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
HCHO	$HCHO_{\text{-S5P}}$	tropospheric column density	mol/m^2	7km×3.5km	daily	S5P-TROPOMI
O_3	$O_{3\text{-CAMS}}$	mass fraction in air	kg/kg	0.75°×0.75°	3-hour	CAMS
C_3H_8		total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
C_5H_8		total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
CH_4		total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
H_2O_2	VOCS	total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
OH		total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
PAN		total column density	kg/m^2	0.75°×0.75°	3-hour	CAMS
NO_x	$NO_{X\text{-CAMS}}$	emissions of NO_X for sum sectors	$kg/m^2/s$	0.1°×0.1°	monthly	CAMS
Surface temperature	T	Surface 2m	K	0.1°×0.1°	1-hour	ERA5
Surface UV radiation	UV	Integrated	J/m^2	0.1°×0.1°	1-hour	ERA5
Relative humidity	RH	1000 hpa	%	0.1°×0.1°	1-hour	ERA5

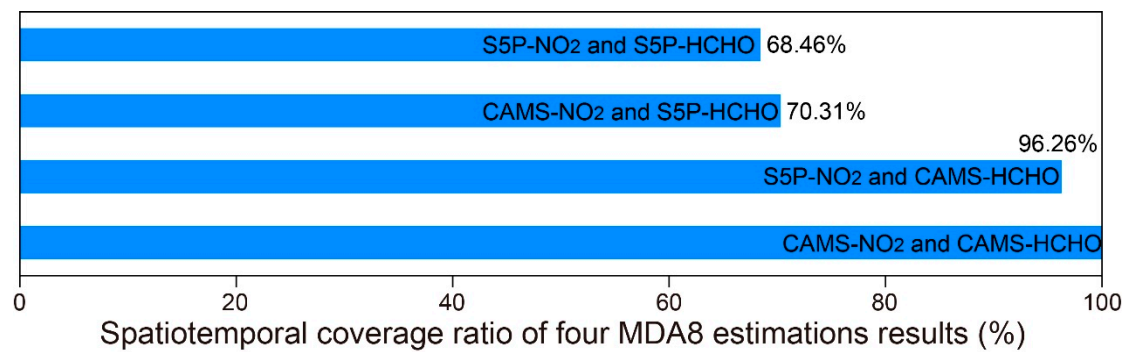|						
Surface pressure	SP	Surface	Pa	0.1°×0.1°	1-hour	ERA5
Boundary layer height	BLH	Integrated	m	0.1°×0.1°	1-hour	ERA5
Wind speed	WS	Surface 10m	m/s	0.1°×0.1°	1-hour	ERA5
Wind direction	WD	Surface 10m	°	0.1°×0.1°	1-hour	ERA5
Total cloud cover	TCC	Integrated	%	0.1°×0.1°	1-hour	ERA5
Total precipitation	TP	Integrated	m	0.1°×0.1°	1-hour	ERA5
DEM	DEM	/	m	30m×30m	/	CRESDC
Population	POPU	/	/	1km×1km	1-year	CRESDC
LULC	LULC	/	/	30m×30m	1-year	CRESDC
NDVI	NDVI	Surface	/	0.05°×0.05°	16-day	MODIS

Figure S1. Spatiotemporal coverage ratio of four surface ozone estimation models.