

Supplementary file

Table S1. Site information of 11 ground-observed stations

Regions	Station name	Station Abbr.	Longitude(°E)	latitude(°N)
West of the Bohai Sea (BLT)	Beijing	BJ	116.398	40.046
	Langfang	LF	116.724	39.546
	Tianjin	TJ	117.324	39.100
North of the Bohai Sea (NB)	Tangshan	TS	118.183	39.645
	Qinghuangdao	QHD	119.607	39.936
	Huludao	HLD	120.865	40.738
	Dalian	DL	121.628	38.950
South of the Bohai Sea (SB)	Cangzhou	CZ	116.872	38.316
	Dongying	DY	118.654	37.431
	Yantai	YT	121.406	37.488
	Weihai	WH	122.093	37.490

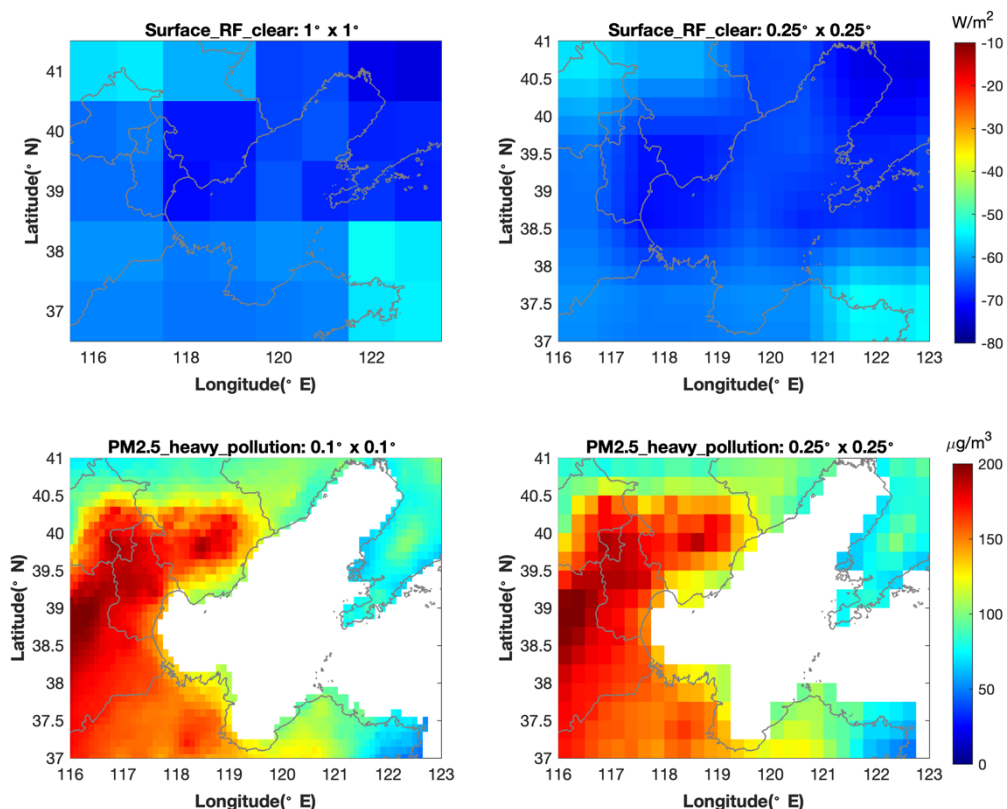


Figure S1. The comparison between the original data (first column) and the interpolated data (second column) in the study area. The first row is the radiative forcing (RF) from CERES at the surface in clear sky, and the second row is the interpolation for the PM_{2.5} from TAP.