

Table 1 Station information for the validation of extreme precipitation prediction in different divisions of Taihu basin.

Rain gauge	Lon (°)	Lat (°)	Ele (m)	HX	ZX	HQ	WCXY	YCDM	HJH	PDPX
Shangpei (SP)	119.22	31.45	7	√						
Zhudaogang (ZDG)	119.80	31.05	187		√					
Wulou (WL)	120.38	30.97	7			√				
Dongtingxishan (DTXS)	120.3	31.1	15			√				
Chenshu (CS)	120.53	31.73	2				√			
Xiangcheng (XC)	120.73	31.48	6					√		
xinshi (XS)	120.28	30.62	7						√	
Huangdu (HD)	121.23	31.27	5							√

Table 2 Assessment results of daily precipitation time series accuracy of MSWEP, GWRMP, and IDW in Taihu Lake basin based on reserved eight rain gauges from May to September 1979 to 2016.

	Gauge	SP	ZDG	WL	DTXS	CS	XC	XS	HD
pbias(%)	MSWEP	-9.13	-20.02	-15.68	-21.40	-11.48	-9.02	-3.72	-14.80
	GWRMP	7.54	7.44	6.08	11.69	9.39	10.69	5.92	7.56
	IDW	2.51	-9.62	-10.53	-13.53	6.64	5.90	4.63	-5.98
RR	MSWEP	0.59	0.55	0.56	0.57	0.60	0.56	0.57	0.62
	GWRMP	0.71	0.75	0.76	0.79	0.78	0.72	0.74	0.75
	IDW	0.68	0.74	0.67	0.68	0.61	0.69	0.68	0.43
RMSE	MSWEP	8.61	9.89	8.01	8.24	7.83	7.67	7.71	7.92
	GWRMP	7.30	7.33	5.83	5.72	5.77	6.19	5.95	6.36
	IDW	7.63	7.54	6.95	7.15	7.67	6.48	6.58	9.61
KGE	MSWEP	0.69	0.53	0.57	0.54	0.63	0.66	0.70	0.66
	GWRMP	0.77	0.78	0.79	0.82	0.77	0.75	0.72	0.81
	IDW	0.82	0.73	0.82	0.76	0.77	0.83	0.83	0.51
POD	MSWEP	0.85	0.85	0.88	0.87	0.85	0.90	0.88	0.87
	GWRMP	0.95	0.96	0.97	0.97	0.94	0.97	0.97	0.97
	IDW	0.95	0.96	0.96	0.97	0.94	0.98	0.98	0.72
HSS	MSWEP	0.63	0.64	0.61	0.62	0.63	0.57	0.63	0.63
	GWRMP	0.69	0.71	0.75	0.79	0.69	0.60	0.69	0.68
	IDW	0.73	0.75	0.75	0.72	0.71	0.72	0.73	0.62
VHI	MSWEP	0.97	0.97	0.97	0.97	0.97	0.98	0.98	0.97
	GWRMP	0.99	0.99	0.99	1.00	1.00	0.99	1.00	0.99
	IDW	0.99	0.99	0.99	0.99	0.99	1.00	1.00	0.71