

Supplementary Spreadsheet

Table S1. parameters of BGD-based polynomial regression.

Parameters	January	February	March	April	May	June	July	August	September	October	November	December
θ_0	-0.4472	-0.4934	-0.6041	-0.7575	-0.8097	-0.7945	-0.7559	-0.7714	-0.7826	-0.7884	-0.7568	-0.9221
θ_1	0.8712	1.0120	1.1289	1.0198	1.1291	1.0070	0.8401	1.0193	1.2556	1.1340	0.9551	1.8328
θ_2	0.0935	0.1037	0.3241	0.7673	1.2666	1.0787	0.9482	0.9130	0.8312	1.2278	1.0855	2.0189
θ_3	-0.0949	-0.0931	-0.0333	-0.0477	-0.0316	0.0937	0.1176	0.1276	0.0651	0.0552	0.0980	0.6798
θ_4	0.3749	0.3816	0.6369	0.9046	0.8973	0.6345	0.6350	0.5872	0.5466	1.0620	0.8540	1.6929
θ_5	0.7716	0.7700	0.6561	0.4123	0.0115	0.0922	0.1364	0.1586	0.3268	-0.0720	-0.1269	-0.5078
θ_6	0.1288	0.2310	0.3613	0.3729	0.4176	0.4211	0.4324	0.4929	0.4550	0.3470	0.2865	0.2409
θ_7	0.4648	0.4077	0.4477	0.5043	0.2876	-0.0138	0.0508	-0.0036	0.0795	0.2181	0.2794	0.2777
θ_8	0.0694	0.0528	0.1812	0.3770	0.4599	0.3962	0.3116	0.3634	0.2845	0.6179	0.4870	0.6337
θ_9	-0.0670	-0.0688	0.0300	0.7226	0.9999	0.8419	0.7821	0.6567	0.6968	0.9760	1.1231	-0.0288
θ_{10}	0.0310	0.0727	0.3103	0.4940	0.4022	0.1981	0.2293	0.2054	0.1625	0.4432	0.3303	0.1070
θ_{11}	0.7716	0.7700	0.6561	0.4123	0.0115	0.0922	0.1364	0.1586	0.3268	-0.0720	-0.1269	-0.5078
θ_{12}	0.0005	-0.0119	0.1287	0.5347	0.9959	1.2727	1.1009	0.7827	0.4863	0.6062	0.6927	0.6023
θ_{13}	-0.1539	-0.1599	-0.2888	-0.3097	-0.3526	-0.3603	-0.3846	-0.4488	-0.4184	-0.4427	-0.4438	-0.9825
θ_{14}	0.0020	-0.0858	0.0150	0.1677	0.1235	0.1282	0.2198	0.1687	0.0406	0.1409	-0.0264	-0.5979
MC	0.3061	0.2808	0.2339	0.2294	0.2343	0.2416	0.2633	0.2755	0.2427	0.2711	0.3141	0.2978

Note: $\theta_0, \theta_1, \theta_2, \theta_3, \theta_4, \theta_5$ represents the parameters of BGD-based polynomial regression, respectively. MC is the minimum costs of the BGD-based polynomial regression.