

Table 1

No.	Input Parameters	Unit
1	B_X [IMF GSM-X component]	nT
2	B_Y [IMF GSM-Y component]	nT
3	V_X [Solar wind velocity in GSM]	km/s
4	N_p [Ion number density]	/cm ³
5	$B_s^\dagger$ [Southward IMF GSM-Z component]	nT

$$B_s^\dagger = \begin{cases} 0 & (B_z > 0), \\ B_z & (B_z \leq 0). \end{cases}$$

Table 2

	Kp			
	0 ~ 1+ and 6- ~ 9		2- ~ 5+ and 6- ~ 9	
	[KN2022]		[This study]	
	MLP	PL	MLP	PL
Accuracy	0.9904	0.9875	0.9213	0.9100
Precision	0.9925	0.9867	0.9232	0.9276
Recall	0.9883	0.9883	0.9200	0.8900
F-measure	0.9904	0.9875	0.9213	0.9082