

Prediction of solar wind velocity using Pc5 INDEX

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In order to predict the solar wind velocity by using ULF waves observed at Moshiri ($L=1.6$) and Kuju ($L=1.3$), we constructed a new ULF index in the Pc 5 frequency range, i.e., Pc5 INDEX at the stations. The amplitude of band-pass filtered Pc 5 variations during the period of 12 years was classified into 28 steps, and then we examined correlation between Pc5 INDEX and the solar wind velocity observed by ACE satellite at the L 1 point.

It is found that the Pc5 INDEX shows a good correlation with the solar wind velocity. In the present paper, we will also mention local time dependence and secular variation of PC5 INDEX, and the difference between the two stations.