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# A Solar Activity Dependence of A Solar Wind Effect on Cosmic Ray

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## Abstract content

We have investigated a solar activity dependence of a solar wind (SW) effect on cosmic ray intensity (CRI) variations. The SW effect discussed here is not concerned with transient origins such as Forbush decreases nor with known solar modulations. The effect is represented by the regression coefficient of CRI variations with SW velocities. CRI data we used have been recorded by the neutron monitor at Kiel and the vertical muon telescope at Nagoya during the period from 1963 to 2006. SW velocities are referred to the OMNI data set. To remove the transient effects, the days with more than 2% decrease of CRI compare to the average of the three preceding days and the days in the following recovery phase are rejected. Long term effects are also rejected by taking differences from 27-day running average. For examining the solar activity dependence, we divide the corresponding period into 5 quiet terms and 4 active terms by referring the sunspot numbers. It is found that the regression coefficients of CRI variations with SW velocities are clearly dependent on the solar activity. They are large in active term and small in quiet term, and the ratio of coefficients is about 2.

## If this papers is presented for a collaboration, please specify the collaboration

## Summary

## Reference

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