

## **SOLAR WIND AND MEV ENERGY PROTONS**

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The possible role of solar wind speed in the characteristics of cosmic ray particles at MeV energies is considered. Since convection and adiabatic deceleration play a dominant role in particle propagation at a few MeV energies the decay phase of SEP events is defined by the escape rate from the observation region. In this case the characteristic time constant of exponential-form decays should be inversely proportional to solar wind speed. Observations at various locations (SOHO, Ulysses) are discussed. The 11-year modulation of GCR and MeV protons during quiet time periods correlates with solar activity, and in particular, with solar wind speed. The comparison of particle fluxes and solar wind speed during the solar activity minima of 1976-77 and 1986-87 indicates that whereas fluxes of both quiet time low energy protons and GCR were lower in 1986-87, the corresponding solar wind speeds were higher. The two recent minima, 1996-97, and 2006-07 are also compared using SOHO data. Such dependences indicate the possible role of the solar wind in establishing the global characteristics of energetic particles in the inner heliosphere.

Energetic particles, solar wind, solar activity cycle

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