

RECURRENT COSMIC RAY MODULATIONS AT SOLAR MINIMUM AND SOLAR MAXIMUM OVER THREE SOLAR CYCLES

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Cosmic ray modulations associated with corotating high-speed streams from coronal holes and which tend to recur at the solar rotation period are a prominent feature of the declining and minimum phases of the solar cycle. However, they are in fact present throughout the solar cycle and have been prominent during the maximum phase of the current solar cycle, as they were during earlier solar cycles. Nonetheless, there is a change in the source of these streams from the equatorward-extensions of polar coronal holes at solar minimum to more localized near-equatorial coronal holes at solar maximum. We have previously reported a 22-year variation in the sizes of recurrent cosmic ray modulations at solar minimum, which depend on the solar global magnetic field direction A . This suggests that the transport of cosmic rays in the heliosphere has some influence on the size of these modulations. We will examine whether the change in the solar source of high speed streams between solar maximum and minimum influences the relationship between streams and the associated cosmic ray modulations.