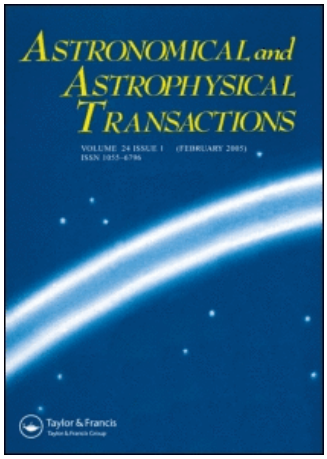

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The east-west decimetric radioscans of the sun and the solar-tropospheric effects

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THE EAST-WEST DECIMETRIC RADIOSCANS OF THE SUN AND THE SOLAR-TROPOSPHERIC EFFECTS

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Statistical analysis of daily observations of the field of the surface atmospheric pressure and geomagnetic indices has permitted to find the global response of the troposphere to strong geomagnetic disturbances associated with the solar activity (Mustel *et al.*, 1986; Mustel, *et al.*, 1990). In order to study different manifestations of the solar-tropospheric relations, similar methods have been used while a new way of the determination of the key days has been proposed on the basis of east-west solar radioscans (λ 10.7 cm). Using such key days, statistical analysis of the pressure data for the southern hemisphere for 1970–1984 has been performed. A local winter period (June–August) and the west-phase period of the quasi-biennial oscillation have been chosen for this analysis. It has been found that the response of the troposphere to the solar activity manifests itself as regular large-scale zones of disturbances having wavy character with the 72° period along the longitude. Thus, the use of the solar radioscans allows to reveal certain global solar-tropospheric relations.

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