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The distribution of the K indices geomagnetic activity in 23 rd Sun's cycles

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Changes of the mechanisms of solar activity generate changes of the structure of geomagnetic activity. The researching of J. Bartels and S. Chapmen show that geomagnetic activity could be presented by the annual changes, the seasonal changes, the periodical and aperiodical variations of geomagnetic activity.

In 23rd Sun's cycle (1996-2004), in the geomagnetic activity could be included several phases. Those are the geomagnetic activity changes in the phase before maximum of the solar cycle (in period 1996-1998), the geomagnetic activity changes in the maximum solar activity (1999-2001) and the phase of geomagnetic activity in years after the solar maximum (2002-2004).

In this work will be shown the changes of the K indices of geomagnetic activity on Geomagnetic observatory Grocka (GCK) and Geophysical observatory L'Aquila (AQU). The indices of geomagnetic activity on observatories Grocka (GCK) and L'Aquila (AQU) will be compared with the Kp planetary index of the geomagnetic activity. In the analyses will be used the daily values of the K indices of geomagnetic activity. The morphology of the geomagnetic activity in signed phases will be presented with the frequency of the K indices of geomagnetic activity.

In this work will be shown procedure "automatically scaling" of the hourly values of the K indices geomagnetic activity, on Geomagnetic observatory Grocka (GCK). On the basis of hourly values will be computed three-hourly and daily values of the K indices.

In this work will be interpretated seasonal characteristics of geomagnetic activity changes on geomagnetic observatories Grocka (GCK) and Geophysical observatory L'Aquila (AQU).