

# OSCILLATION OF THE POLARIZED RADIO EMISSION “THE SUN AS A STAR”

*A.G. Tlatov<sup>1</sup>, A. Riehkainen<sup>2</sup>*

<sup>1</sup>Kislovodsk Solar Station of the Pulkovo Astronomical Observatory, Russia

<sup>2</sup>Tuorla Observatory, Turku University, Finland

solar@narzan.com

We investigated variations of the radio emission of the whole Sun at 1.76 cm wavelength obtained and archived at the Nobeyama radio heliograph in 1992-2006. For this purpose the daily data of the intensity and also right/left circular polarization of the radio emission with one-second average were processed. It was found that 3 minutes oscillations are present at the different phases of solar activity, including the minimum of activity. Especially conspicuous these oscillations present in a difference between the right and the left circular polarization. Intensity of the oscillations changes with a level of the solar activity. Spectral analysis of the presence of 3-minute oscillations in polarization of the solar radio emission shows that there exist a modulation with the periods of 27 and 157 days. During the minimum activity the main periods of the 3 minutes oscillations are slightly shorter than during the maximum activity.