LUNAR SEISMOGRAM HIDDEN PERIODICITY: SPECTRAL-GISTOGRAMM REPRESENTATION

Tanaka S. (ISAS, Japan)**, Lukanenkov A.V.** (AI)**, Khavroshkin O.B., Khrustalev A.B.** (IPE RAS)

khavole@mail.ru; phone: 8499 252 21 98

Key words: *lunar oscillation, seismograms hidden periodicity, Nakamura catalog*

On the basis of submitted lunar seismograms (from ISAS) with the help modified spectral - histograms method the latent periodicity are allocated. In the present work various components (X, Y, Z и $\sqrt{X^2 + Y^2 + Z^2}$) of lunar seismogram written down by seismic network « Apollo-12,-14,-15,-16 » are analyzed.

The received results have significant differences in comparison with known results as on histograms peaks which can be referred to a range of own oscillations of the Moon are clearly allocated. Also these histograms are compared about earlier received results (the modified Lomb - Skargle method developed for non equidistant of numbers series, a resonant method). The main result is that the peaks received by various methods approximately coincide that allows to attribute their periods to the appropriate own oscillations of the Moon.