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LUNAR METEOROID IMPACT SEISMOGRAMMS STRUCTURE, ELEMENTS, PERIODICITIES

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Abstract

The model of nonlinearity of seismicity processes on the Moon is successfully used, as well as on the Earth, already more than 20 - ty years. The most known example of such nonlinearity are tidal periodicity of time lines moonquakes as consequence of modulated process. Modulation in lunar seismology (as well as in terrestrial) is change under the known law (the law of external influence) in time of parameters of a seismic wave field. Tidal modulation is short-term high-frequency seismic events and\or seismic acoustic emission occuring as a result of slow tidal solar-terrestrial periodic influences on the Moon lithosphere. According to terrestrial experience record of seismic noise or emission in conditions of external influence on geological structures has prominent features: wave packages with abrupt forward or back front, complicated curve forms, rectangular insignificant duration emissions on amplitude, sites of a signal of regular type quasy harmonic or relaxed forms. In view of these features records of two most powerful meteoric impacts were analysed. Basically all above-stated features of emission structures were found out. One of consequences of it is the probability of "indirect" record of the reflected teleseismic waves and weak dependence of their amplitude on an initial signal (moonquake - twins). Other important effect is strongly expressed modulated effects, in 1-st time own oscillations of the Moon.