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On study fine atmospheric structure by using of the method of decomposition of infrasonic signals from pulsed sources

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The proposed method are based on the decomposition of infrasonic signals from pulse sources. In this method, the recorded infrasonic signal is modeled by the sequence of single acoustic pulse having the form of a U and N waves. Each pulse U and N wave corresponds to the reflection of sound from atmospheric inhomogeneities at different altitudes in the atmosphere. By determining time intervals between such pulses U and N waves it is possible to determine vertical gradients of the effective sound speed at the different altitudes in the atmosphere.
The method to determine the vertical profiles of the vertical gradients of effective sound velocity in the atmosphere by using data from infrasound monitoring are proposed.
The obtained data are corresponds to the theory of the fine structure in the upper atmosphere.