GEOPHYSICAL MODELLING OF PULSE IMPACTS ON THE SURFACE OF SOIL

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The expanded results of geophysical modeling of a flat problem of pulse impact on the surface of soil received by method of consecutive conformal displays of physical area of a current in the form of area of a complex of Kirchhoff on area of complex potential - a rectangle are presented in this work. At the same time assumption of the academician Lavrentyev M.A. about giving to the soil massif of properties of ideal incompressible liquid in the conditions of pulse (explosive) influence was accepted. The received analytical dependences allow to define both a soil emission funnel outline, and all necessary hydromechanical characteristics of a potential stream (pressure head function, function of current, current speed, etc.). The example of calculation of a test task in which, in particular, the received soil emission funnel outline completely coincides with results of the known strict decision of Lavrentyev-Kuznetsova is presented.

Keywords: pulse influence, emission funnel, Kirchhoff's complex, complex potential, conformal, displays, pressure head function, function of current.

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