Specialization: 010700/07 Physics of the Earth and planets

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**Development of technique for GPR data quantitative interpretation.**

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Method of georadiolocation (GPR) is widely applied for solving different problems: mapping geological structures, evaluation of ice cover thickness, estimation of water layer thickness, mapping subbottom sediments in the aquatories, searching local underground objects, investigation of technical constuctions etc.

Success of GPR application depends on electrical properties (permittivity) contrast of the subject of search and host medium, or geological section layers, which boundary is traced by reflections of electromagnetic pulses.

The subject of this work is development of algorithms for quantitative processing of radarograms, such as evaluation of permittivities and thicknesses of layers in geoelectrical section (the cases of one and two reflecting boundaries). The developed algorithm is applied for processing of GPR sounding data obtained at fresh water ponds with the aim of thermocline investigation.

# Список публикаций

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