

Dirichlet and Neumann problems in multi-dimensional cone

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We consider some classical boundary value problems, namely Dirichlet and Neumann problems for elliptic pseudo-differential equation in multi-dimensional cone in Sobolev-Slobodetskii spaces. Existence of a special wave factorization [1], [2] permits to obtain the formula for general solution of such equation for some cases. To determine certain arbitrary functions in this formula we add Dirichlet or Neumann conditions on conical surface. It implies the integral formulas for solution of these problems which are similar to the classical potentials. Some first results for degenerated cones are given in [3].

References

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