Boundary value problem for B-parabolic equation with integral condition of the first kind

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Abstract

The article deals with the boundary value problem with integral condition of the first kind for a parabolic equation with Bessel operator, and proves its equivalence to the boundary value problem for the same equation with usual local boundary condition. Uniqueness of solution of the problem is proven. The said solution is made as a sum of series by eigenfunctions of the corresponding eigenvalue and eigenfunction problem.

Keywords

Bessel operator, Nonlocal integral condition, Parabolic equation