

**ON SOME NONLOCAL BOUNDARY VALUE  
PROBLEMS FOR EVOLUTION EQUATIONS***M. V. Uvarova*

In the Sobolev-Besov spaces, we examine the question on solvability of nonlocal boundary value problems for operator-differential equations of the form

$$u_t - Lu + \gamma u = f, \quad u(0) = Bu + u_0,$$

where  $B$  is a linear operator,  $L$  is a positive operator, and  $\gamma$  is a real parameter. Under certain conditions on the parameter  $\gamma$  and the data, the existence and uniqueness theorems for solutions to this boundary value problem are proven. The results are applied to studying nonlocal boundary value problems for parabolic equations and systems.

*Key words and phrases:* operator-differential equation, parabolic system of equations, nonlocal problem, Sobolev-Besov space.

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