PROBLEM WITH INTEGRAL SYSTEM OF PARTIAL DIFFERENTIAL EQUATIONS OF SECOND ORDER IN SOBOLEW SPACE IN TWO AREA

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Let,. Let , be a Sobolew space, with the finite norm [6].
whereis the Fourier tansform of the function. In the stripwe consider nonlocal-integral problem for system of partial differentia equations

(1)

(2)
(3)

where, , , are squert matrix Assuming that there al parts of roots of

Solution of the problem (1)-(2) is the represented in the form
,
where - algebraic complement the standing element, - main determinant. This problem is a continuos works[1,…,5].

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Задачі з інтегральними умовами для систем рівнянь другого порядку в просторі Соболєва

Встановлено умови існування в шкалі просторів Соболєва єдиного розв'язку задачі з інтегральними умовами у вигляді моментів для системи рівнянь другого порядку із частинними похідними. Розв'язок цієї задачі побудовано за допомогою перетворення Фур'є.