

**PARTIALLY INTEGRAL OPERATORS WITH
BOUNDED KERNELS***Yu. Kh. Eshkabilov*

Let $\Omega = [a, b]^\nu$ and let T be a partially integral operator defined in $L_2(\Omega^2)$ as follows:

$$(Tf)(x, y) = \int_{\Omega} q(x, s, y) f(s, y) d\mu(s).$$

In the article, we study the solvability of the partially integral Fredholm equations $f - \varkappa Tf = g$, where $g \in L_2(\Omega^2)$ is a given function and $\varkappa \in \mathbb{C}$. The notion of determinant (which is a measurable function on Ω) is introduced for the operator $E - \varkappa T$, with E is the identity operator in $L_2(\Omega^2)$. Some theorems on the spectrum of a bounded operator T are proven.

Key words and phrases: partially integral operator, partially integral equation, integral Fredholm equation, Fredholm determinant, Fredholm minor, spectrum, limit spectrum, point spectrum.

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