

ON THE ESSENTIAL AND THE DISCRETE SPECTRA OF A FREDHOLM TYPE PARTIAL INTEGRAL OPERATOR

G. P. Arzikulov and Yu. K. Eshkabilov

We investigate the structure of the essential spectrum of a self-adjoint Fredholm type partial integral operator H . We obtain an explicit description of the essential spectrum of H and prove that an eigenvalue of H exists.

Key words and phrases: essential spectrum, discrete spectrum, lower boundary of the essential spectrum, Fredholm type partial integral operator.

Arzikulov Golibzhon Pardaevich

Tashkent State
Polytechnical University,
Tashkent, 100179 Uzbekistan.
E-mail: arzikulov79@mail.ru

Received

February 10, 2014

Eshkabilov Yusup Khalbaevich

National University of Uzbekistan,
Tashkent, 100174 Uzbekistan.
E-mail: yusup62@mail.ru

Translated into English:

Siberian Advances in Mathematics, V. 25, N 4, 231–242 (2015).

DOI: 10.3103/S105513441504001X