1061-47-36 **Aleksandr Karelin*** (karelin@uaeh.edu.mx), Apostoles 122, Fracc. Paseo de las Reynas, 42180 Pachuca, Mexico, and **Anna Tarasenko**. *On a structure of the kernel of singular integral operators with involution.*

We denote the Cauchy singular integral operator along a contour Γ by

$$(S_\Gamma\varphi)(t) = \frac{1}{\pi i}\int\limits_\Gamma \frac{\varphi(\tau)}{\tau - t}d\tau,$$

the identity operator on Γ by $(I_\Gamma\varphi)(t) = \varphi(t)$.

Let Γ be the unit circle $\mathbb{T}$ o the real axis $\mathbb{R}$.

In the space $L_2(\Gamma)$, we consider an operator

$$A_\Gamma = a_\Gamma I_\Gamma + c_\Gamma S_\Gamma + b_\Gamma W_\Gamma + d_\Gamma S_\Gamma W_\Gamma, \quad A_\Gamma \in [L_2(\Gamma)],$$

where coefficients a, b, c, d are bounded measurable functions on Γ; $(W_\mathbb{T}\varphi)(t) = \varphi(-t)$.

We study a structure of the kernel of singular integral operators with involution A_Γ.

Operators equalities are main tools. (Received March 10, 2010)