

2004f:47072 47G10 30E20 47A53

Karlovich, Alexei (P-TULT);

Karlovich, Yuri [**Karlovich, Yu. I.**]

Compactness of commutators arising in the Fredholm theory of singular integral operators with shifts. (English. English summary)

Factorization, singular operators and related problems (Funchal, 2002), 111–129, *Kluwer Acad. Publ., Dordrecht*, 2003.

The paper is devoted to the compactness of commutators $aS_\Gamma - S_\Gamma aI$ and $W_\alpha S_\Gamma - S_\Gamma W_\alpha$, where S_Γ is the Cauchy singular integral operator, a is a bounded measurable function, W_α is the shift operator $W_\alpha f = f \circ \alpha$, and α is a bi-Lipschitz homeomorphism (shift). The main results of the paper are compactness criteria for these commutators on rearrangement-invariant spaces with nontrivial Boyd indices, where Γ is either the unit circle or the unit interval.

{For the entire collection see 2004d:47001}

V. S. Pilidi (Rostov-on-Don)