

Perturbation classes for semi-Fredholm operators

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Abstract

We give conditions for a couple of Banach spaces X and Y implying that the component $P\Phi_+(X, Y)$ of the perturbation class for the upper semi-Fredholm operators coincide with the strictly singular operators $\mathcal{SS}(Y, Y)$.

We also give conditions implying that the component $P\Phi_-(X, Y)$ of the perturbation class for the lower semi-Fredholm operators coincide with the strictly cosingular operators $\mathcal{SC}(Y, Y)$.

We show concrete examples of Banach spaces satisfying the aforementioned conditions.

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