Non-Banach operator algebra: a new tool for solving some operator equations

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For given complex Banach spaces V_1 and V_2, let $B \in \mathcal{B}(V_1)$, $A \in \mathcal{B}(V_2)$ and $X \in \mathcal{B}(V_1, V_2)$ be given operators. In this talk we will speak about an operator algebra contained in the module $\mathcal{B}(V_1, V_2)$, which is generated by the operator AXB. Applications to the equations $X - AXB = C$ and $AX - XB = C$ are illustrated.

References

[1] B. D. Djordjević, *Operator algebra generated by an element from the module $\mathcal{B}(V_1, V_2)$*, Complex Anal. Operator Theory 13 (2019) 2381–2409 https://doi.org/10.1007/s11785-019-00899-x

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