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## INVARIANCE PROPERTIES OF AN OPERATOR PRODUCT INVOLVING GENERALIZED INVERSES\*

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**Abstract.** Given bounded linear operators  $T_1$ ,  $T_2$  and  $T_3$ , this paper investigates certain invariance properties of the operator product  $T_1XT_3$  with respect to the choice of bounded linear operator X, where X is a generalized inverse of  $T_2$ . Different types of generalized inverses are taken into account.

**Key words.** Bounded linear operators, Generalized inverse, Moore-Penrose inverse, Operator product, Invariance property.

AMS subject classifications. 15A09, 15A24, 47A05.

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