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The operation ABA in operator algebras

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Abstract: The binary operation aba, called Jordan triple product, and its variants (such as e.g. the sequential product $\sqrt{a}b\sqrt{a}$ or the inverted Jordan triple product $ab^{-1}a$) appear in several branches of operator theory and matrix analysis. In this paper we briefly survey some analytic and algebraic properties of these operations, and investigate their intimate connection to Thompson type isometries in different operator algebras.

Keywords: loop; gyrogroup; Jordan triple product; Thompson metric; JB-algebra
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