

## Tèmítópé G. Jaiyéólá, Olufemi O. George

*On loops that satisfy  $x \cdot (x \cdot yx)z = (x \cdot xy) \cdot xz$*

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**Abstract:** An LTWC is a loop that satisfies  $x \cdot (x \cdot yx)z = (x \cdot xy) \cdot xz$ . LTWC loops are proved to be power associative and left conjugacy closed (LCC). An LCC loop is LTWC if and only if  $x(x \cdot yx) = (x \cdot xy)x$ . Connections to left Bol loops, left Cheban loops and loops satisfying  $(xy \cdot x) \cdot xz = x \cdot (yx \cdot x)z$  (LWPC) are also considered.

**Keywords:** left conjugacy closed loop; power associativity; left Cheban loop; autotopism; loop identities

**AMS Subject Classification:** 20N02, 20N05

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