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Kikkawa loops and homogeneous loops

Comment.Math.Univ.Carolinae 45,2 (2004) 279-285.

Abstract: In H. Kiechle's publication "Theory of K-loops" [3], the name Kikkawa loops is given to symmetric loops introduced by the author in 1973. This concept started from an analogical imagination of sum of vectors in Euclidean space brought up on a sphere. In 1975, this concept was extended by him to the more general concept of homogeneous loops, and it led us to a non-associative generalization of the theory of Lie groups.

In this article, the backstage of finding these concepts will be disclosed from the viewpoint how a new mathematical concept appears and grows up in imagination of a mathematician.

Keywords: loops, Lie triple algebras, symmetric spaces

AMS Subject Classification: 20N05, 05B07, 53C35