
Simple right conjugacy closed loops

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A loop Q is a *right conjugacy closed loop* (or RCC loop) if R_Q is closed under conjugation. Though, most of the literature on the one-sided conjugacy closed loops deals with left conjugacy closed loops, RCC loops are the more natural choice here since our permutations act on the right. In this talk we give the first general construction of a large class of nonassociative, finite simple RCC loops. Our construction by no means accounts for all such loops; for example, Nagy's Bol loop of exponent 2 does not fit this construction. Thus a full classification of finite simple RCC loops is still elusive. Nevertheless, we have found by exhaustive computer search that our construction accounts for all finite simple RCC loops up to order 15.