

On the conjugacy problem for knot groups

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Abstract

A method is developed to show word and conjugacy problems solvable for a large class of knot groups. The class includes groups of a large number of non-alternating knots for which no previous conjugacy results have been obtained. The method involves a modification of the small cancellation diagrams of Lyndon and Schupp applied to Wirtinger presentations of knot groups. The crucial tool is a dual to each small cancellation diagram consisting of a set of curves in the plane of a projection of the knot.

It is hoped that this approach will enable one to show that all knot groups have solvable conjugacy problem.