
JONATHAN LEMAIRE-BEAUCAGE, Université du Québec à Montréal
Left-orderability of the fundamental group of the double branched cover of links

In 2011, Boyer, Gordon and Watson stated the following conjecture : An irreducible rational homology 3-sphere is an L-space if and only if its fundamental group is not left-orderable. Ozsvath and Szabo had already shown that the double branched cover of a quasi-alternating link is an L-space. In agreement with their conjecture, Boyer, Gordon and Watson showed that the fundamental group of the double branched cover of alternating links, a subset of quasi-alternating links, is not left-orderable.

In this talk, I will discuss work to extend the result of Boyer, Gordon and Watson to non-alternating quasi-alternating links. In particular, we examine the (non) left-orderability of the fundamental group of the double branched cover of every knots of 10 and less crossings. We have also found new infinite families of non-Montesinos, non-alternating, quasi-alternating knots for which the fundamental group of the double branched cover is not left-orderable.