ALEXANDER POLYNOMIALS OF
DOUBLY PRIMITIVE KNOTS

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ABSTRACT

It is an interesting open problem to decide the knots in the 3-sphere admitting a lens space surgery. Known such examples are only knots called 'doubly primitive', and it is conjectured that they are all. Toward the conjecture, recently, the Alexander polynomials of such knots have been studied by Ozsvath and Szabo, Kadokami, and Yamada. In this talk, we give a formula for Alexander polynomials of doubly primitive knots. This also gives a practical algorithm to determine the genus of any doubly primitive knot.

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