

## DEHN SURGERY AND $(1,1)$ -KNOTS IN LENS SPACES

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It is one of the unsolved problems to decide the knots in the 3-sphere which have non-trivial Dehn surgery yielding lens spaces. The concept of double-primitive knots is introduced by Berge, and he gave some families of knots satisfying the above. It is conjectured that Berge's list is complete.

Let  $K$  be a double-primitive knot in the 3-sphere and  $M$  a lens space obtained by Dehn surgery on  $K$ . Then we can naturally find the dual knot  $K'$  in  $M$ . It is expected that  $K'$  is a  $(1,1)$ -knot in  $M$ .

In this talk, we give some necessary conditions for  $(1,1)$ -knots in lens spaces which have non-trivial Dehn surgery yielding the 3-sphere.

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