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Further, we also classify points on $M(n, i, m-i)$. This is a joint work with Sagar Kalane.

Branched cyclic coverings of connected sums of lens spaces*

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We construct an infinite family of 3-manifolds and show that these manifolds have cyclically presented fundamental groups and are cyclic branched coverings of connected sums of lens spaces.

The purpose of this paper is to investigate the connection between cyclically presented groups and cyclic branched coverings of lens spaces branched over knots or links. This kind of works can be found in many papers [1, 2, 3].

We developed a method for the constructing of 3-manifolds which are branched cyclic coverings of connected sums ($k \geq 2$) of lens spaces $L(p_i, q_i)$, $i = 1, \dots, k$, i.e., for manifolds

$$N_{(p_1, q_1), (p_2, q_2), \dots, (p_k, q_k)} = L(p_1, q_1) \# L(p_2, q_2) \# \dots \# L(p_k, q_k).$$

We are interested in the class of closed 3-manifolds which are branched cyclic coverings of connected sums of lens spaces. In particular, the class contains manifolds from [2] which are branched cyclic covers of connected sums of two lens spaces.

References

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