

Higher homotopy classes of elliptic Weyl group regular orbit spaces

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Contrary to classical Artin monoids (of finite type), elliptic Artin monoids are no-longer lattice nor cancellative. Assuming that Zariski-van Kampen method yields elliptic braid relations and using the non-cancellative relations, we construct second homotopy classes in the elliptic regular orbit spaces. On the other hand, the classifying spaces for the elliptic Artin monoids carry also the second homotopy classes coming from the same non-cancellative relations. We conjecture that the classifying spaces are homotopy equivalent to the elliptic regular orbit spaces.