# TORSION SUBGROUPS OF QUASI-ABELIANIZED BRAID GROUPS

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Abstract. In this joint work with I. Marin, we study the quasi-abelianized braid group associated to a finite complex reflection group, that is the quotient of its generalized braid groups by the derived subgroup of its pure braid group as introduced in [BMR98]. First studied by Digne in the case of Coxeter groups, we extends the works of Gonçalves, Guaschi, Ocampo [GGO17] and Marin [Mar16] on finite subgroups of quasi-abelianized braid group. We get explicit criteria for subgroups of the complex reflection group to lift to subgroups of this quotient. In the specific case of the classical braid group, this enables us to describe all its finite subgroups; we show that every odd-order finite group can be embedded in it, when the number of strands goes to infinity. The proof are based on finite groups cohomological methods

## References

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