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Homology of braid group with coefficients in symplectic representations

Homology of braid groups and Artin groups can be addressed to several geometric application. We completely calculate the integral homology of a space of smooth curves of genus g ramified over $n = 2g + 1$ points, with one marked point. The main part of such homology is described by the homology of the braid group with coefficients in a symplectic representation, namely the braid group acts on the first homology group of a genus g surface in a standard way. Our computations shows that such groups have only 2-torsion. Stabilization properties are also investigated. (joint work with M. Salvetti)