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Geometric representations of the braid group on a nonorientable surface

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By a geometric representation of a group G on a compact surface S we understand any homomorphism from G to the pure mapping class group $\mathrm{PMod}(S)$ of S, that is the group of isotopy classes of homeomorphisms of S preserving every component of ∂S. In my talk, I will classify homorphisms form the braid group on n strands to the mapping class group of a nonorientable surface of genus g for $n \geq 14$ and $g \leq n+1$. This talk is based on a joint work Michał Stukow, Marta Leśniak and Piotr Pawlak.