



SOME PROPERTIES OF VIRTUAL, FLAT VIRTUAL AND GAUSS BRAID GROUPS

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In the paper [1] for every closed virtual braid was defined a group and proved that this group is an invariant of the corresponding virtual link. To do this we used a representation $VB_n \rightarrow \text{Aut}(F_{n+1})$ of the virtual braid group VB_n into the group of automorphisms of free group F_{n+1} of rank $n + 1$.

In the present report we discussed some properties of the flat virtual braid group FB_n , Gauss braid group GB_n and construct some representations $FB_n \rightarrow \text{Aut}(\tilde{F}_{n+2})$ into the automorphism group of some quotient \tilde{F}_{n+2} of the free group F_{n+2} . The similar representation will construct for GB_n . Using these representations we define groups of flat virtual links and Gauss links.

REFERENCES

- [1] V. G. Bardakov, P. Bellingeri, "Groups of virtual and welded links", *Journal of Knot Theory and Its Ramifications*, Vol. 23, No. 3 (2014), 23 p.

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