

Actions generated by spherical twists on triangulated categories

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In this talk we will present some results about actions of groups generated by spherical twists on enhanced triangulated categories. Mainly two results in this direction will be presented. The first one is the description of actions generated by two twists along spherical sequences. In particular, it will be shown that A_2 , B_2 and G_2 configurations of spherical sequences almost always induce actions of the corresponding Artin groups. In some exceptional cases the counterexamples will be given. Another result is the new proof of the faithfulness of braid group actions of types A_n and D_n induced by the corresponding configurations of spherical objects. This proof was obtained in collaboration with Anya Nordskova. Our proof works for any sphericity except 1. Note that even the action of the braid group corresponding to an A_3 configuration of 1-spherical objects can be non faithful.

References

- [1] Y. VOLKOV, *Groups generated by two twists along spherical sequences*, arXiv: 1901.10904