

BRUNNIAN BRAIDS AND LIE ALGEBRAS

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Brunnian braids have interesting relations with homotopy groups of spheres. In this work, we study the graded Lie algebra of the descending central series related to Brunnian subgroup of the pure braid group. We prove that this is a free Lie algebra and we find its set of free generators. We also calculate the rank of this algebra in each grading.

The talk is based on the joint work with with J. Y. Li and J. Wu [1].

REFERENCES

- [1] J.Y.Li, V.V.Vershinin, J.Wu, “Brunnian Braids and Lie Algebras”, *J. Algebra*, Vol. 439, 270-293 (2015).

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