

# The tricategory of internal bicategories in $\mathbf{Ab}$

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We describe the tricategory of bicategories internal to abelian groups; specifically we calculate internal bicategories, homomorphism of bicategories, strict and pseudo natural transformations and also modifications with the respective formulas for composition. The results are, as expected, closely related to homotopies and chain complexes as pointed out by D. Bourn in his paper [1] seventeen years ago.

## REFERENCES

- [1] D. Bourn, *Another denormalization theorem for the abelian chain complexes*, J. Pure Appl. Algebra 66 (1990) 229–249.