Baumslag-Solitar group

Canonical name	BaumslagSolitarGroup
Date of creation	2013-03-22 17:25:12
Last modified on	2013-03-22 17:25:12
Owner	yark (2760)
Last modified by	yark (2760)
Numerical id	5
Author	yark (2760)
Entry type	Definition
Classification	msc 20F05
Synonym	Solitar-Baumslag group

A *Baumslag-Solitar group* is a group with presentation

$$\langle b, t \mid t^{-1}b^m t = b^n \rangle$$

for some non-zero integers m and n.

These groups were studied by Baumslag and Solitar[**?**], who were interested in finding examples of finitely generated http://planetmath.org/HopfianGroupnon-Hopfian groups. In particular, the group

$$\langle b, t \mid t^{-1}b^2 t = b^3 \rangle$$

is non-Hopfian.

References

[1] G. Baumslag, D. Solitar, *Some two-generator one-relator non-Hopfian groups*, Bull. Amer. Math. Soc., 68 (1962) 199–201. (This paper is http://projecteuclid.org/euclid.bams/1183524561available online from Project Euclid.)

[2] D. J. Collins, *http://eom.springer.de/b/b130070.htmBaumslag–Solitar group*, in the *Online Encyclopaedia of Mathematics*.