

Geometric and Asymptotic Group Theory II

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<http://www.mat.univie.ac.at/~dosaj/GGTWien/Course.html>

Dienstag, 11:00–12:00, Raum D1.07 UZA 4

Blatt 6

Amenability

- (1) Show that if $F\ell_S G = 0$ wrt some finite generating set S , then $F\ell_{\tilde{S}} G = 0$ wrt any other finite generating set \tilde{S} of G .
- (2) Show that if $F\ell_S G = 0$ wrt one of the definitions of the boundary, then $F\ell_S G = 0$ wrt any other boundary.
- (3) Show that the direct product of two amenable groups is itself amenable.
- (4) Is the Baumslag-Solitar group $BS(2, 3) = \langle a, t \mid ta^2t^{-1}a^{-3} \rangle$ amenable? What is its growth?
- (5) Prove that the Baumslag-Solitar group $BS(1, 2) = \langle a, t \mid tat^{-1}a^{-2} \rangle$ is amenable. What is its growth?