Mathematics > Group Theory

Rigid abelian groups and the probabilistic method

Gábor Braun, Sebastian Pokutta

(Submitted on 12 Jul 2011)

The construction of torsion-free abelian groups with prescribed endomorphism rings starting with Corner's seminal work is a well-studied subject in the theory of abelian groups. Usually these construction work by adding elements from a (topological) completion in order to get rid of (kill) unwanted homomorphisms. The critical part is to actually prove that every unwanted homomorphism can be killed by adding a suitable element. We will demonstrate that some of those constructions can be significantly simplified by choosing the elements at random. As a result, the endomorphism ring will be almost surely prescribed, i.e., with probability one.

Comments:	12 pages, submitted to the special volume of Contemporary Mathematics for the proceedings of the conference Group and Model Theory, 2011
Subjects:	**Group Theory (math.GR)**
MSC classes:	20K20, 20K15, 20K30, 05D40 (Primary), 60B15 (Secondary)
Journal reference:	Contemporary Mathematcs 576 (2012), 17-30
DOI:	10.1090/conm/576/11342
Cite as:	**arXiv:1107.2325 [math.GR]**
	(or **arXiv:1107.2325v1 [math.GR]** for this version)

Submission history

From: Gábor Braun [view email]

[v1] Tue, 12 Jul 2011 15:31:52 GMT (17kb)

Which authors of this paper are endorsers?