

## Report for the author

The paper is generally well-written. Some suggestions to improve the writing are provided. No critique of the proofs is provided.

Page 1

Lines on this page are numbered from the title line.

Line 14: Why adopt the notation  $\mathbb{Z}_n^{(r)}$  rather than simply  $\mathbb{Z}_n^r$ , which generally is more commonly used? The notation  $G^{(r)}$  is often used for terms of the derived series.

Line 14: Insert “of”, delete “-” and replace “in which” with “where”: “... denote the direct sum of  $r$  copies of  $\mathbb{Z}_n$ , where ...”

Line 22: Replace “a” with “the”: ... be the subgroup of  $G \otimes G$  generated ...”

Line 29: Delete “on”: “... while he was studying the projective ...”

Page 2

Line 6: Awkward wording. Perhaps: “Later, Heineken [10, Proposition 3] showed that if ...”

Line 8-10: Replace the pronoun “he” “Heineken also classified ...”

Lines 14-20: Perhaps provide some explanation of the notation choices for the groups identified in Theorem 1.1 and Theorem B - what is the significance of the  $r, s$  and  $t$  in  $\Phi_r(s^t)$ ? (Here  $s = 1$  in each case)

Line 15: Replace “in which” with “where”

Line 19: Insert “a”: “... where  $t$  is a non-quadratic ...”

Line 22: Reword “Several works”, e.g.: “Several authors have determined the structure ...”

Line 29: Replace “characterized” with “characterize”

Lines 38-39: Reword, e.g., “... we consider two cases, namely, when  $G$  is capable and when  $G$  is non-capable. First we consider when  $G$  is non-capable. We obtain the following result.”

Page 3

Lines 8-10: Reword to avoid passive voice, e.g., “We show in Theorem 2.1(vi) that if  $G_p \cong \mathbb{Z}_p$ , then  $G$  is non-capable. Therefore we characterize the functors of interest in two cases, as described in Theorems B and C below.”

Line 21 Delete “results”: “Then the following hold:”

Line 28: Delete comma and replace one word: "... we give some results that will be used ..."

Line -1: Delete ", below": "(see Corollaries 4.6-4.8)".

Page 4

No comments

Page 5

Lines 27-28: This sentence is difficult to understand as written. It appears that either the word "that" or the word "which" should be deleted.

Line 34: Replace "in which" with "where"

Line 35: Replace "in which" with "where"

Page 6

Line 1: Replace "in which" with "where"

Page 7

Line 2: Delete comma and three words: "Now we are ready to compute ..."

Line 3: Delete comma: "... exterior square and the non-abelian ..."

Line 20: Delete comma: "... exterior square and the non-abelian ..."