CORRIGENDUM

GOLDIE*-SUPPLEMENTED MODULES – CORRIGENDUM

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In this corrigendum to the paper, "Goldie*-supplemented modules" [1], we present revised Propositions 3.7 and 3.12 and correct some typographical errors.

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Unfortunately, we have found some errors in Propositions 3.7 and 3.12. The following are corrected versions of these results.

PROPOSITION 3.7. *(i) Let M be $\mathcal{G}^*$-supplemented and K a maximal submodule of M. Then, $K = S + (K \cap T)$, where S is a supplement of T, T is a supplement of K, T is a local module and $K\beta^*S$.*
(ii) Let M be $\mathcal{G}^*$-lifting and K a maximal submodule of M. There exist $C, D \leq M$ such that $M = C \oplus D$, $K\beta^*D$, $K = D \oplus (K \cap C)$ and C is a local module.

Proof. (i) Since M is $\mathcal{G}^*$-supplemented, there exists a supplement S such that $K\beta^*S$. By [1, Theorem 3.6], K has a supplement T. From [1, Theorem 2.6], T is a supplement of S. By [2, p. 234, 20.4(9)], S is a supplement of T. [1, Proposition 2.10] yields that $K = S + (K \cap T)$. Then, $K \cap T$ is a maximal submodule of T. Let $t \in T$ such that $t \notin K$. Then, $K + tR = M$. Since T is a supplement of K, $T = tR$. Therefore, T is a local module.
(ii) Since M is $\mathcal{G}^*$-lifting there exist $C, D \leq M$ such that $M = C \oplus D$ and $K\beta^*D$. From [1, Theorem 2.6], C is a supplement of K. By [1, Proposition 2.10], $K = D \oplus (K \cap C)$. As in part (i), C is a local module.

PROPOSITION 3.12. *If M is a projective module, then the following conditions are equivalent:*
(i) M is supplemented,
(ii) M is $\mathcal{G}^*$-supplemented,
(iii) M is amply supplemented,
(iv) M is lifting,
(v) M is $\mathcal{G}^*$-lifting,
(vi) M is semi-perfect.

Proof. This result follows from [1, Theorem 3.6], [1, Proposition 3.11] and [2, 27.21].
Also, there are a few typos in the paper:
(1) on page 42, lines 14 and 22 : replace "supplementing" with "supplemented";
(2) on page 48, line 22 : replace "Msller" with "Müller";
(3) on page 52: in reference [1] replace "Commun." with "Comm." ; and in reference [6], replace "Muller" with "Müller".

REFERENCES

1. G. F. Birkenmeier, F. T. Mutlu, C. Nebiyev, N. Sokmez and A. Tercan, Goldie*-supplemented Modules, *Glasgow Math. J.* **52A** (2010), 41–52.
2. J. Clark, C. Lomp, N. Vanaja and R. Wisbauer, *Lifting modules*: *supplements and projectivity in module theory* (Birkhäuser Verlag, Basel, Switzerland, 2006).