A CORRIGENDUM ON *MUTATIONS VS. SEIBERG DUALITY*

JORGE VITÓRIA

There are two issues to be corrected.

(1) The first issue was pointed out by Bernhard Keller and Dong Yang, to whom I thank for the kind comments. In Definition 1.3 of [2] the definition of right equivalence is incorrect - and Theorem 1.7 of [2] is only valid for the definition provided in [1], which refers to an isomorphism of completed path algebras (rather than an isomorphism of the path algebras themselves). It is however clear that a right equivalence as defined in [2] (let's call it strong right equivalence) implies right equivalence as defined in [1]. This is used implicitly in the paper. Throughout [2], mutation is considered as a procedure that eliminates 2-cycles. This is in general not true (see [1]). It is however true for good potentials such that no related arrows occur in the mutation (see relevant definitions in [2]). This fact can be verified by Theorem 3.7, where an explicit strong right-equivalence is constructed with no recurrence to Theorem 1.7. Thus, in the very end of the proof of Theorem 3.4, when stated that mutations remove 2-cycles, this should be considered true for this case only. For that purpose the condition: *no related arrows occur in the mutation* should be added to the hypothesis of Theorem 3.4.

(2) The second issue was pointed out by Peter Jørgensen and Toby Stafford, to whom I am very thankful as well. This concerns the end of the proof of Proposition 3.5, namely when proving that no further relations than the ones produced by the algorithm can occur. This holds true but further arguments are necessary. The full extent of these arguments have been included in [3] and are available in my personal webpage.

References

[1] Derksen, H., Weyman, J., Zelevinsky, A.; *Quivers with potentials and their representations I: mutations*, Selecta Math. 14, no.1 (2008), 59–119;

[2] Vitória, J; *Mutations Vs. Seiberg Duality*, Journal of Algebra 321, no.3 (2009), 816–828;

[3] Vitória, J.; *Categorical and Geometric Aspects of Noncommutative Algebras: Mutations, Tails and Perversities*, Ph.D. Thesis (2011), University of Warwick;