ERRATUM TO "KOSZUL DUALITY FOR OPERADS"

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In Section 2.2 of our paper "Koszul Duality for Operads" [1], the definition of the products $\bullet$, $\circ$ was given incorrectly. It should be replaced by the following.

For any two Σ_2-modules V, W we have maps

$$\phi_n : F(V \otimes W)(n) \hookrightarrow F(V)(n) \otimes F(W)(n),$$

$$\psi_n : F(V)(n) \otimes F(W)(n) \to F(V \otimes W)(n).$$

The ϕ_n come from a morphism of operads $\phi = \phi_{V,W} : F(V \otimes W) \hookrightarrow F(V) \otimes F(W)$, which reflects the fact that the tensor product of an $F(V)$-algebra and an $F(W)$-algebra is an $F(V \otimes W)$-algebra. The map ψ_n is dual to $\phi_{V^*,W^*,n}$.

Now, given two quadratic operads $\mathscr{P}$, $\mathscr{Q}$ with $\mathscr{P}(2) = V$, $\mathscr{Q}(2) = W$ and spaces of relations $R_{\mathscr{P}}, R_{\mathscr{Q}}$, the spaces of relations of $\mathscr{P} \circ \mathscr{Q}$ and $\mathscr{P} \bullet \mathscr{Q}$ should be defined, respectively, as

$$\phi_3^{-1}((R_{\mathscr{P}} \otimes F(W)(3)) + (F(V)(3) \otimes R_{\mathscr{Q}})),$$

$$\psi_3((R_{\mathscr{P}} \otimes F(W)(3)) \cap (F(V)(3) \otimes R_{\mathscr{Q}})).$$

All the results of Section 2.2 are valid with these definitions of the products.

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References

[1] V. GINZBURG AND M. KAPRANOV, *Koszul duality for operads*, Duke Math. J. **76** (1994), 203–273.

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