

# A(BiAlg) mod Cyclic Diagrams

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11:39 AM

Can't we simply map  $A^{BiAlg} \xrightarrow{\eta} A^{Acyc}$  by mapping all cyclic diagrams to 0?

$$\begin{array}{c} \downarrow \swarrow \\ \downarrow \\ \downarrow \searrow \end{array} \quad = \quad \downarrow \quad \swarrow \quad - \quad \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} \quad \text{OK.}$$

$$\begin{array}{c} \swarrow \downarrow \\ \downarrow \\ \swarrow \downarrow \end{array} \quad = \quad \downarrow \quad \swarrow \quad - \quad \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} \quad \text{OK}$$

$$\begin{array}{c} \downarrow \swarrow \\ \downarrow \\ \downarrow \searrow \end{array} + \begin{array}{c} \swarrow \downarrow \\ \downarrow \\ \swarrow \downarrow \end{array} = \downarrow \quad \swarrow \quad - \quad \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} \quad \text{X}$$

The last fails - The l.h.s may be 0 with no reason for the r.h.s to be 0.

silly - this would fail in the  $\omega$  quotient.

silly some more:

$$0 = \eta \left( \begin{array}{c} \circ \\ \downarrow \end{array} - \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} + \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} \right) = \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} - \begin{array}{c} \swarrow \searrow \\ \swarrow \searrow \end{array} \neq 0$$