The tder Language

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8:59 AM

As $\mathbb{A}^W(T_n) \cong U(tr_n \rtimes (tder_n \oplus a_n))$, it ought to be possible all operations on $\mathbb{A}^W(T_n)$ in AT-language.

$$\begin{array}{ccc} g & \xrightarrow{exp} & U(g) \\ \text{vect space morphism} \downarrow \varphi & & \downarrow ? \\ g & \xrightarrow{exp} & U(g) \end{array}$$

Question If $\varphi: g \to g$ is a linear map The question is in question.

Suppose $\Phi: U(g) \to U(g)$ is a co-algebra map; then Φ restricts to a linear map $\varphi: g \to g$ (not a Lie algebra morphism!)

Q. does this diagram commute?

$$\begin{array}{ccc} g & \xrightarrow{exp} & U(g) \\ \varphi \downarrow & & \downarrow \Phi \\ g & \xrightarrow{exp} & U(g) \end{array}$$

If not, does it induce an alternative $\varphi': g \to g$?

Is there a nice formula for φ' in terms

of Y and the bracket of gZ.