

Cheng-Ming Bai's Hefei talk

(C-M.B. is @ Nankai U?)

November 8, 2018 7:47 PM

NTS: I've never understood the Maurer-Cartan eqn.

C-M.B.: Let \mathfrak{g} be a Lie algebra w/ a rep.

$\rho: \mathfrak{g} \rightarrow \mathfrak{gl}(V)$. An \mathcal{O} -operator \mathfrak{g} w.r.t. V

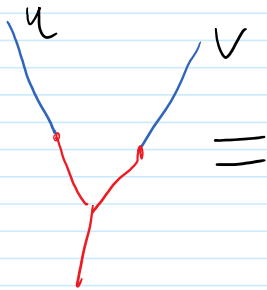
is a linear map $T: V \rightarrow \mathfrak{g}$ s.t. $\forall u, v \in V$,

$$[Tu, Tv] = T(\rho(Tu)(v) - \rho(Tv)(u))$$

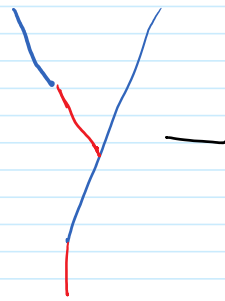
} Does it make sense to split T to T_u & T_v ?

$$T \in V^* \otimes \mathfrak{g}$$

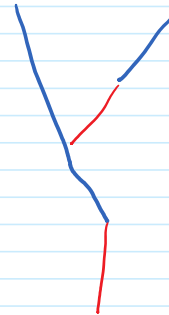
$$V^* \xrightarrow{T} \mathfrak{g}$$



=



-



$$\partial T \left(\begin{array}{c} | \rightarrow | \rightarrow | \\ \downarrow \uparrow \downarrow \\ | \leftarrow | \leftarrow | \end{array} \right) + \left(\begin{array}{c} | \rightarrow | \rightarrow | \\ \downarrow \uparrow \downarrow \\ | \leftarrow | \leftarrow | \end{array} \right) + \left(\begin{array}{c} | \rightarrow | \rightarrow | \\ \downarrow \uparrow \downarrow \\ | \leftarrow | \leftarrow | \end{array} \right) = 0$$

C-M.B.: "IF $V = \mathfrak{g}^*$, this becomes the CYBE".

I don't see that. okay, maybe.

Q. Is there a global version, like YB is a global version of CYBE? Is it related to annular braids? [In both cases, a rep can be chosen away from one strand].