

Quantizing quasi-Poisson structures

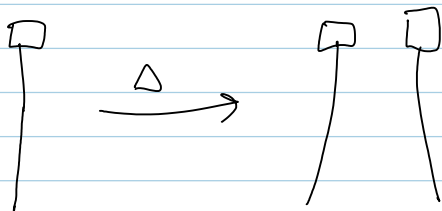
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11:28 AM

$\{f, g\} = f \circ g - g \circ f = \hbar \{f, g\} \in \dots$
 $0 \in \mathfrak{M}$
 $\{f, g, h\} + c.p. = \phi(df, dg, dh)$
 $\phi \in \Lambda^3 \mathfrak{g}$
 $f \circ g - g \circ f = \hbar \left(\frac{1}{2} \epsilon(df, dg) + \{f, g\} \right)$
 $\sigma(df, dg)$
 $\sigma \in \Gamma(T^{\otimes 2} M)$
 \mathbb{R}
 $A \otimes A \xrightarrow{\Phi} A \otimes A \rightarrow A$
 simplest example: $\text{id} + \hbar \dots$
 $+ \text{const.} \Leftrightarrow A \otimes A \xrightarrow{\hbar} A$ is com-assoc. in the strict sense
 $A = C^\infty(\mathbb{H}) \otimes \mathfrak{g}$
 $\frac{1}{\hbar} = \hbar + A = 0 \leftarrow \text{stabilizes on } \text{c.c.s.o.}$

$G^V \hookrightarrow \mathfrak{M}_{\Sigma, V}(G) = \text{Hom}(\pi_1(\Sigma, V), G) = G^{\text{smoking}}$
 $\uparrow = A$
 $\dots \rightarrow C^\infty(M)_{, *}$
 $(A \otimes A) \otimes A \xrightarrow{\Phi} A \otimes (A \otimes A)$
 $\times \circ \uparrow$
 $A \otimes A$
 $\times \rightarrow A \leftarrow \times$
 Φ if Φ even
 no need for V_+, V_-

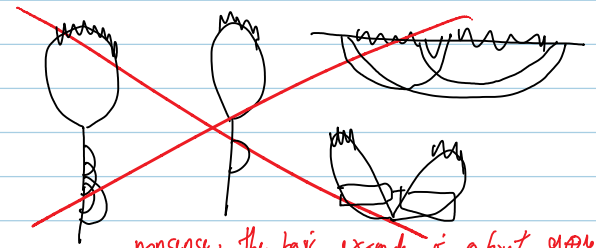
XXX: Lie theory, base ring, first paper.
 $U(\mathfrak{g}^V)$ -module
 $\text{to } (\oplus \oplus (-))$
 $U(\mathfrak{g}^V \oplus \mathfrak{g}^V)$ -Mod Φ
 Φ - assoc.

What is an algebra?



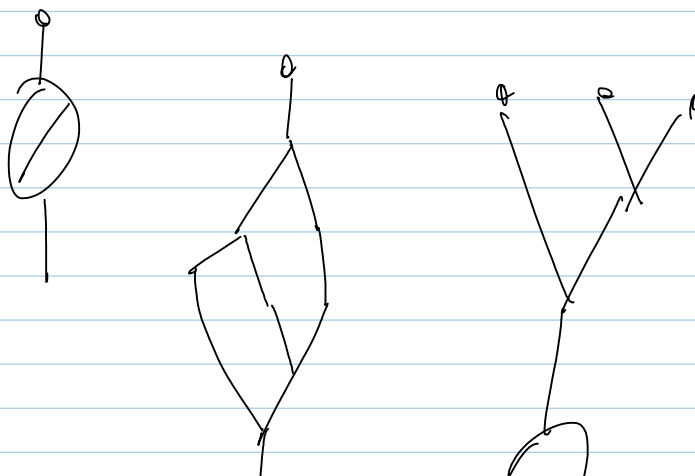
$I \subset U(\mathfrak{g})$ s.t. $\Delta I \subset I \otimes 1 + 1 \otimes I$
 where did associativity go?

What's \mathbb{F} for the "basic example"?



nonsense, the basic example is about $\mathfrak{g} \otimes \mathfrak{g}$, not about \mathbb{F} .
 It would be great to verify that the basic example is at all an example!

What means "an algebra in $U(\mathfrak{g} \oplus \mathfrak{g})\text{-Mod}^{\Phi}$ "?



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