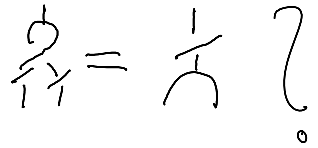
U(g) and Convolutions

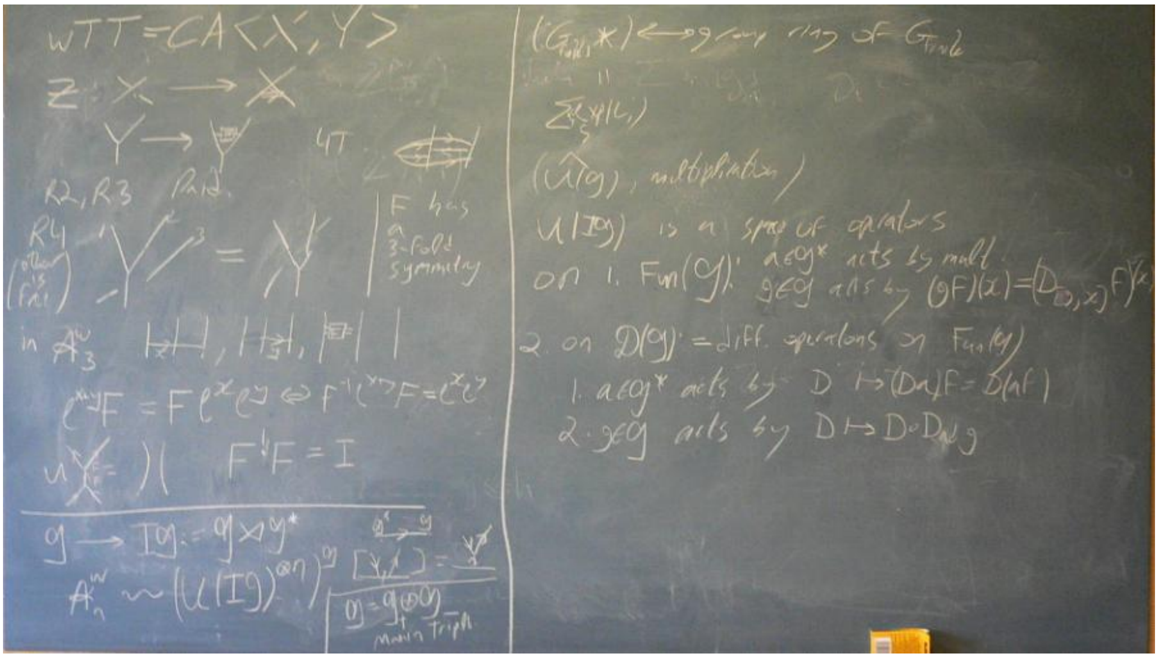
October-02-08
11:30 PM

The product on linear combinations of group-like elements of $U(g)$ $\underline{\underline{\text{is}}}$ convolution of atomic measures!

$$g^{-1}xyg = g^{-1}xgg^{-1}yg$$

e^{x+y} is conjugate of $e^x e^y$

$RF^{21}e(-t) = F \longleftrightarrow$  ?



http://katlas.math.toronto.edu/drorbn/bbs/show?shot=ThurstonD-081007-092809.jpg

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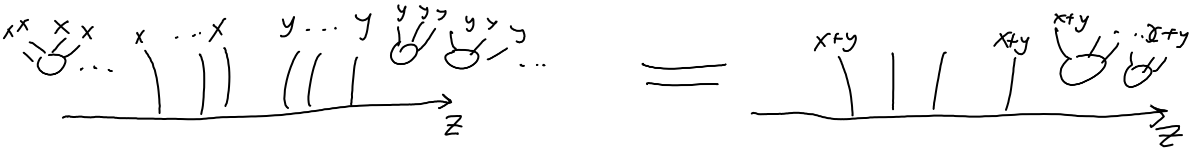
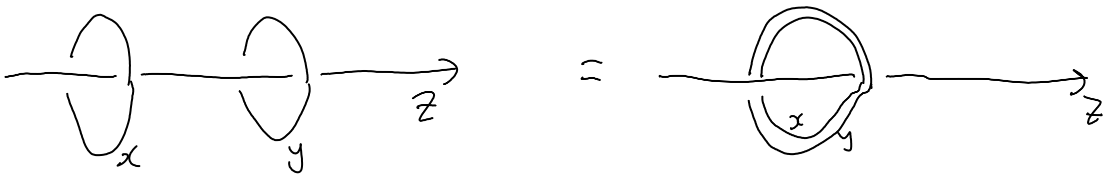
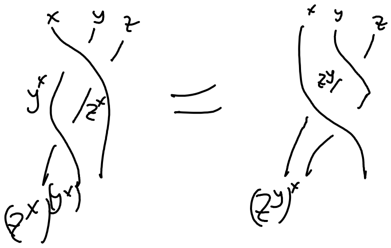
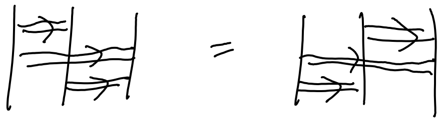
Wheeling says: In $\mathcal{A}(\circledast_x \circledast_y \uparrow_z)$,







should directly imply



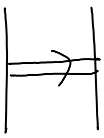
$\mathcal{U}(Ig)$ acts on $Sym(g^*)$:

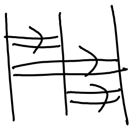
1. $a \in g^*$ acts as multiplication.
2. $g \in g$ acts as directional derivative in the adjoint direction:

$$(gf)(x) = (D_{[g,x]} f)(x)$$

$\Longrightarrow$ "Tangential differential operators, not necessarily constant coefficients"

$\hat{\mathcal{U}}(Ig)$ is "on orbit mass-redistributors".

 becomes $f(x,y) \longmapsto f(x, y^x)$

 becomes $f(x,y,z) \mapsto f(x, y^x, z)$

$\mapsto f(x, y^x, z^x)$

$\mapsto f(x, y^x, (z^x)^{(y^x)})$!

What's  ?

Find within [AT] the origin/KV meaning of the framing equation)

— checked; they don't assert any KV meaning to it; KV holds even without it.

Question How does KV relate to addition laws for angular momentum?

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$U(Ig)$ is a co-algebra. What does it mean in terms of the action on $Sym(g^*)$?

Question Is KV + the framing eqn equivalent to KV on IG? Does KV on IG imply KV on G?

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$$(gf)(x) = (D_{[g,x]} f)(x)$$

what means in terms of action on $\mathcal{D}$?