

# MSRI handout

August-08-08

9:46 AM

$$(R, F) \leftrightarrow (\nearrow, \searrow) \quad (r, t) \leftrightarrow (\leftarrow, \rightarrow)$$

$$R^{12}R^{13}R^{23} = R^{23}R^{13}R^{12} \leftrightarrow \text{unzip} = \text{unzip}$$

$$FF^! = I \leftrightarrow \text{unzip} \rightarrow \text{unzip}$$

$$F^{-1}e(x+y)F = e(x)e(y)$$

$$F^{23}R^{1,23} = R^{12}R^{13}F^{23} \leftrightarrow \text{unzip} = \text{unzip}$$

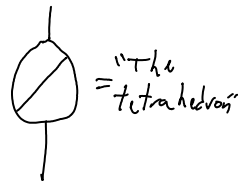
$$R^{12,3} = R^{13}R^{23}$$

$$F^{12,3}R^{12,3} = R^{13}R^{23}F^{12,3} \quad (\text{unforbidding FI makes this automatic})$$

$$RF^{21}e(-t) = F \leftrightarrow \text{unzip} = \text{unzip}$$

$$\Phi = (F^{12,3})^{-1}(F^{1,2})^{-1}F^{2,3}F^{1,2,3} \leftrightarrow$$

$$\Phi \text{ esdr} \leftrightarrow \text{unzip} = \text{unzip}$$



The pentagon and the hexagons follow, with a minor twist, from the fact that we have an unzip-behaved invariant of KTG's.