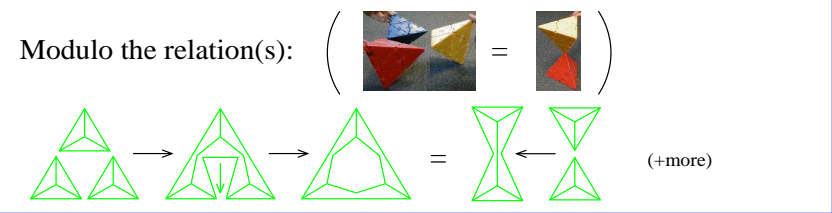
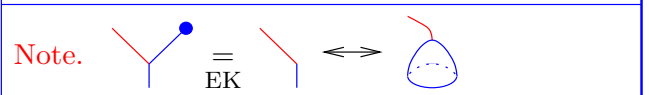
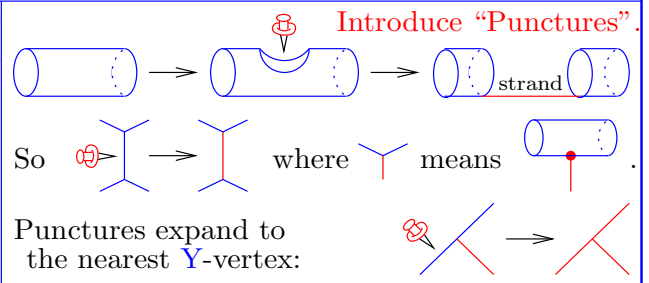
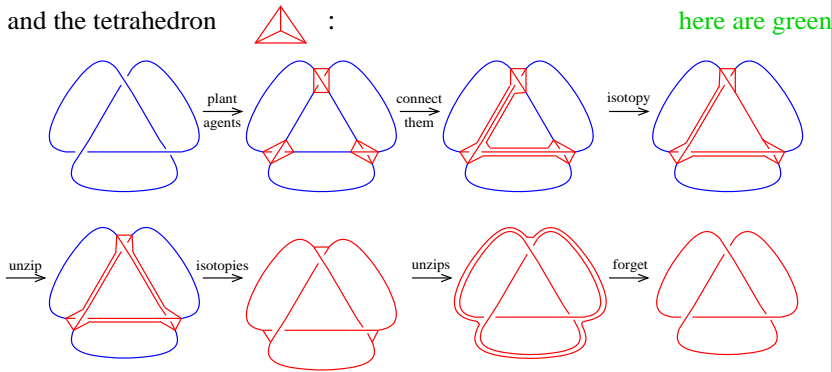


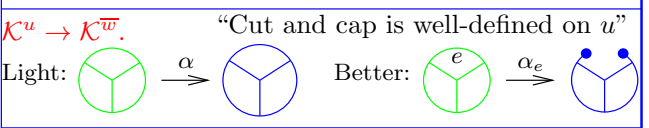
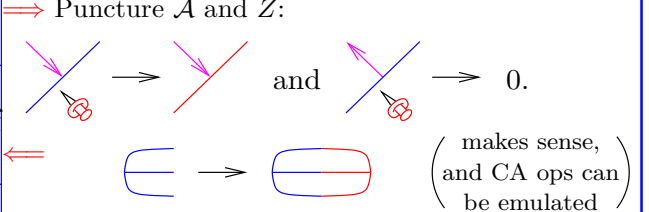
2. w-Knots, Alekseev–Torossian, and baby Etingof–Kazhdan, continued.

Using moves, KTG is generated by ribbon twists and the tetrahedron

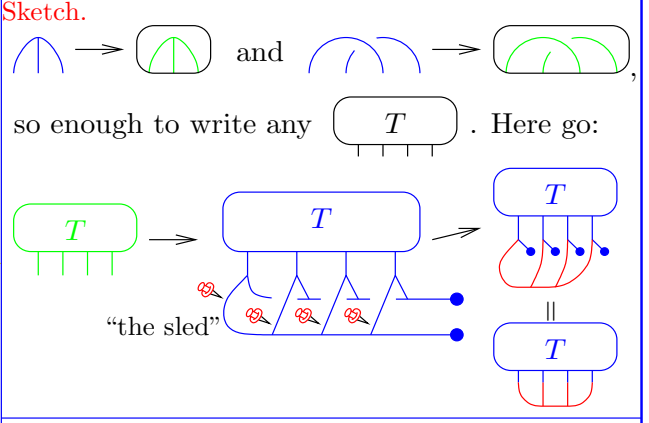


$\mathcal{K}^w$ . Allow tubes and strands and tube-strand vertices as above, yet allow only "compact" knots — nothing runs to  $\infty$ .

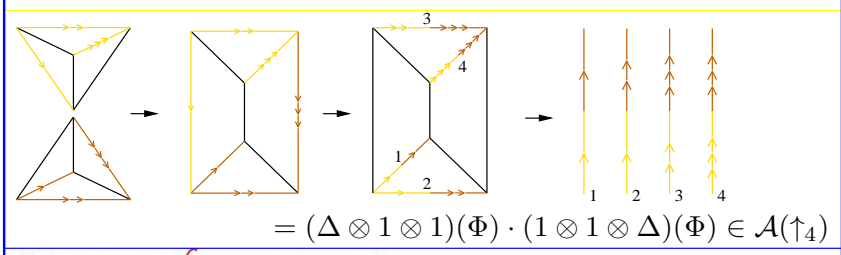
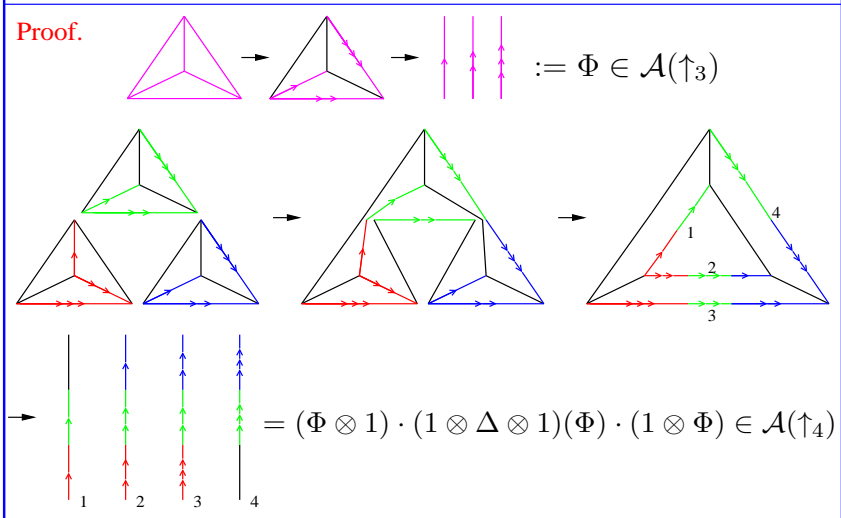
$\mathcal{K}^w \leftrightarrow \mathcal{K}^{\overline{w}}$  equivalence.  $\mathcal{K}^w$  has a homomorphic expansion iff  $\mathcal{K}^{\overline{w}}$  has a homomorphic expansion.



Theorem. The generators of  $\mathcal{K}^{\overline{w}}$  can be written in terms of the generators of  $\mathcal{K}^u$  (i.e., given  $\Phi$ , can write a formula for  $V$ ).



Claim. With  $\Phi := Z(\Delta)$ , the above relation becomes equivalent to the Drinfel'd's pentagon of the theory of quasi-Hopf algebras.



{Solkv}  $\rightarrow$  {Associators}: Trivial - a tetrahedron has 4 vertices.

