Montpellier Talk 3

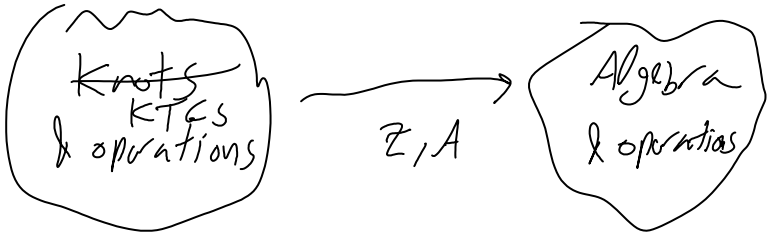
June-04-10
12:30 AM

Why am I doing this?

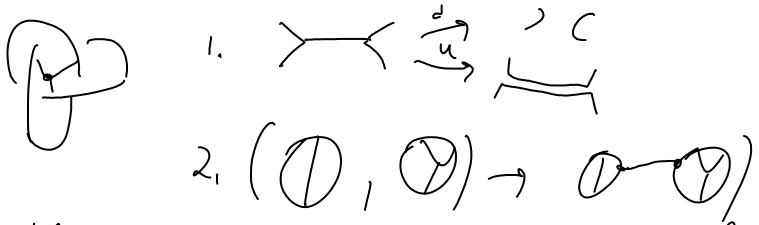
1. Fame and glory.
2. I never understood quantum groups,
   may be one day I will.
3. Get computable, powerful knot invariants.
   (computable: explain; powerful: explain)

Computable: ....

Powerful: Form an "Algebraic knot Theory":



KTG's:



I. Finitely presented! II. Expressive language!

Approaches: 1. Quantum groups: a. I don't understand. b. Not computable.

2. Expansions
   Z: KTG → proj KTG_I
   a. Exists? This is "associators".
   b. not computable.

3. "Internal ideals" – plenty exist, more than "groups", none so far is useful. [though this is not a dead end!]

4. KTG ↪ wKTG, vKTG

   1. A: KTG ↪ wKTG → $\mathcal{A}^w$

works great, but for honest knots, limited to the Alexander poly. [More for links!]

2. $A : KTG \hookrightarrow VKTG \xrightarrow{Z} A''$

Many potentially useful quotients, many more than just "quantum groups".