Random

June-09-11
11:13 AM

HW. Use the (K,I) approach to define a generalization of "finite type invariants of pure braids with a fixed linking matrix". See if that generalizes to the Aarhus story, and to the v and w worlds. See if it provides a more satisfactory foundations to the Aarhus story.

Given (K, I) $\quad \pi_2 : K \to K/I^2$

$J = \ker \pi_2 = I^2$

$S = K/J = K/I^2 =$ "skeletons" in deg $= 0$

$C = J/I^3 = I^2/I^3 =$ "chords" in deg $= 1$.

$\mathcal{F}_m :=$

Perhaps I should understand w-knotted objects with a fixed linking matrix. $\left(\begin{array}{l} \mathrm{tder}_{\geq 2} \ltimes \mathrm{tr} \text{ instead of} \\ (\mathrm{tder} \oplus \mathfrak{a}) \ltimes \mathrm{tr} \ ? \end{array} \right)$

Is there a reasonable notion of "knots with multiplicity", whose projectivization would see the leg-count grading of unitrivalent graphs?

Given a QTLBA, how does its weight system relate to that of its double?

QTLBA: has a bracket and a classical r-matrix; a co-bracket is derived

W_{rr} is not determined by W_r — in the co-commutative case r & hence W_r is 0, yet W_{rr} sees Alexander.

$\delta(a) = [r, a \otimes 1 + 1 \otimes a]$

$\left.\begin{array}{l} r^{12} + r^{21} \\ [\![r, r]\!] \end{array}\right\}$ are $\mathfrak{g}$-invariant.

A similar question: In a QTLBA, r determines δ. To what extent does δ determine r?

Name things grap — graded approximation
and quap — quadratic approximation ?

I should figure out what "doubling a double" means in diagrammatic terms.

diagrammatic terms.

I should look into "v/u-knots" — knots whose "virtual" crossings are themselves u-crossings.