Random

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7:41 PM

How do I say "I care about a tangle only in as much as the automorphism of $\hat{F}_n$ it induces is concerned"?

$(x \uparrow y) \uparrow z = (x \uparrow z) \uparrow (y \uparrow z)$

$z^{-1} y^{-1} x y z = \dots$

$(x \uparrow y) \uparrow z = x \uparrow w$ in groups, this is a weak form of $yz = w$

Why's the projectivization of a group always associative?

$$\big((1+x)(1+y)\big)(1+z) = (1+x)\big((1+y)(1+z)\big)$$

deg 0 $\quad 1 = 1$

deg 1 $\quad x + y + z = x + y + z$

deg 2 $\quad xy + xz + yz = xy + yz + xz$

deg 3 $\quad$ Associativity

There ought to be a way to get directly from a monoid with a diagonal to a Lie algebra. In these terms, what's "a derivation"?

$$g^{-1} = (1 - (1-g))^{-1} = \sum (1-g)^n$$

[so in the projectivization of a monoid, inverses automatically exist]

Is it true that the fundamental quandle of a virtual knot determines it, but not so for the fundamental group?

(No, The fundamental quandle is a weak invariant)