

17-1350-AKT Tue Apr 4: Course summary and the link between gentle and brute

April 3, 2017 9:52 AM

On Friday: Sjabbo Schaveling on k=0 sl3, by Skype.

Course summary: we covered about 2/3 of what I was meaning to cover and failed with the research part; sorry.

The worst omission was that I failed to explain how "gentle" relates to "brute"; I'd like to fix that now

$$K^u = \text{PMM} \langle X/R23 \rangle$$

$$A^u = \text{PMM} \langle H/UT \rangle \cong \begin{array}{|c|} \hline \begin{array}{c} \uparrow \\ \uparrow \\ \uparrow \end{array} \\ \hline \end{array} / \begin{array}{l} AS \\ IHX \\ STU \end{array}$$

A detailed discussion of σ_{ij}^u

Examples: 1. $\mathfrak{gl}(n)$

2. half w/ $\langle h, l \rangle = \langle e, f \rangle = 1$, all else = 0.

Z^u : As stated $\nexists Z^u$. Add parenthesis; leads to "associator-st"; too hard. I don't know quotients that make Z^u computable.

$$K^v := \text{MM} \langle X/R23 \rangle$$

small print: there are variants.

$$A^v := \text{MM} \langle H/CYBE \rangle = \begin{array}{|c|} \hline \begin{array}{c} \rightarrow \\ \rightarrow \\ \rightarrow \end{array} \\ \hline \end{array} / \begin{array}{l} AS_{12} \\ STU_{123} \\ IHX_{123} \end{array}$$

a & α .

Z^v exists but proof is hard and computations even harder.

Lie bialgebras \mathfrak{k} $\sigma_{\mathfrak{a}}^v$ Example: $\mathfrak{a} = \left(\begin{array}{c} \nabla \\ \nabla \end{array} \right)$

The $(k+1)$ -co relations

