

17-1350-AKT Fri Mar 10, Gentle Hour 15: Bracket-rise and Lie algebras

February 7, 2017 8:32 AM

Last Class:



Goal: Construct an A -expansion $Z: K \rightarrow A$.

$$Z(K) = \underset{\text{singler}}{D_K} + \underset{\text{degree terms}}{\text{higher}} \xrightarrow{\text{tangles}} \{A\} / \text{HH} = \text{HH}$$

properties of A :

a. $A(\uparrow_s)$ is a meta-Hopf-algebra. *done before*

b. $A(\uparrow)$ is a commutative & co-commutative bi-algebra.

c. $A(\uparrow_s) \cong A(*_s) = \mathcal{D}(s)$ but first,

1. $A^c \cong A^t$ *done here*

2. The relationship w/ metrized Lie algebras.

3. PBW.

Examples: 1. $\mathfrak{gl}(W)$
 2. half w/ $\langle h, h \rangle = \langle e, f \rangle = 1$,
 all else = 0.