

SI(2)

March 5, 2017 11:33 AM

In sl_2 , $ef + fe + \frac{1}{2}h^2$ is central.

$sl_2: \langle e, f, h \rangle$ with $[h, e] = 2e$ $[h, f] = -2f$ $[e, f] = h$

Where does the central parameter come from, in sl_2 language?

$$e \otimes f + \frac{1}{4} h \otimes h$$

From the \ast construction?

$sl_2^+ : \langle e, f, c, h \rangle$ with c central &

$$[h, e] = 2e \quad [h, f] = -2f \quad [e, f] = h + c$$