

Proof of Part 3 of the Big g_0 -Lemma

Under $[e, f] = h$, h central, $\mathcal{O}(e^{\beta e + \alpha f + \delta ef} \mid fe) = \mathcal{O}(ve^{v(-\alpha\beta h + \beta e + \alpha f + \delta ef)} \mid ef)$, with $v = (1 + h\delta)^{-1}$.

I know about 5 proofs. Here are the most recent two; they start the same:

$$\mathcal{O}(e^{\beta e + \alpha f + \delta ef} \mid fe) = \mathcal{O}(e^{\delta \partial_\alpha \partial_\beta}$$