

1136-18-392

Alexei Davydov and **Chris Renner*** (cr287915@ohio.edu). *Fine Structure of Third Cohomology of Metabelian Groups*. Preliminary report.

Modular categories are essentially linked with classical group theory. One connection is exhibited in the Drinfeld center $Z(G, \alpha)$ with different twists $\alpha \in H^3(G, k^*)$ the third group cohomology. Recently, an isomorphism between elements α and $Z(G, \alpha)$ was exhibited by using the so-called minimal extensions. The interpretation of $H^3(G, k^*)$ as $Mex(Rep(G))$ provides a filtration on $H^3(G, k^*)$ such that $Z(G, \alpha)$ has the same rank and dimension function, fusion rules, S-matrix, and modular data as $Z(G)$ for different choices of α correspondingly. We examine conditions for when any of the modular data coincide between $Z(G, \alpha)$ and $Z(G)$ in the case when G is a metabelian group. (Received January 20, 2018)