

1124-17-127

**Garrett Johnson\***, gjohns62@ncu.edu. *Frobenius functionals and Boundary Solutions of the Classical Yang-Baxter Equation*. Preliminary report.

Quasitriangular solutions to the classical Yang-Baxter equation (CYBE) were classified by Belavin and Drinfeld in the early 1980's. We study a conjecture of Gerstenhaber and Giaquinto concerning boundary solutions to the CYBE. Their conjecture leads one to consider maximal parabolic subalgebras of  $\mathfrak{sl}_n$  that are also Frobenius (which occur only for the  $i$ -th parabolic subalgebra when  $i$  is coprime to  $n$ ). In this talk, we present our results on this conjecture in the case when  $n$  is congruent to  $-1$  or  $1$  modulo  $i$ . We conclude with some ideas on proving the conjecture outside of this special case. (Received September 05, 2016)