A. Evseev. *On Characters of Algebra Groups.*

Let $U_n(q)$ be the group of unitriangular n-by-n matrices over the finite field F_q. Isaacs and Karagueuzian proved that when n is less than or equal to 12 all irreducible representations of $U_n(2)$ are real, but there exist characters of $U_{13}(2)$ which are not real-valued. We analyse characters of $U_n(q)$ (and, more generally, of algebra groups) using a certain reduction procedure. It allows us to calculate the irreducible character degrees of $U_n(q)$ for n not exceeding 12 and arbitrary q. We identify an explicit pair of non-real-valued characters of $U_{13}(2)$ and show that all other irreducible characters of this group are afforded by real representations, confirming a conjecture of Isaacs-Karagueuzian. We also prove that a real-valued character of the group $U_n(2)$ need not be afforded by a real representation. The pattern is, in a sense, similar for arbitrary q.