A 1-NORM BOUND FOR INVERSES OF TRIANGULAR MATRICES WITH MONOTONE ENTRIES

KENNETH S. BERENHAUT[1*], RICHARD T. GUY[1] AND NATHANIEL G. VISH[1]

ABSTRACT. This paper provides some new bounds for $1-$norms of positive triangular matrices with monotonic column entries. The main theorem refines a recent inequality of Vecchio and Mallik in the case of constant diagonal. The results are shown to be in a sense best possible under the given constraints. En route some partial order inequalities are obtained.

[1] Department of Mathematics, Wake Forest University, Winston-Salem, NC 27109, USA.
   E-mail address: berenhks@wfu.edu , guyrt7@wfu.edu , vishng7@wfu.edu