Том 22 № 1

THE STRONG REALITY AND RATIONALITY OF GROUPS OF UNITRIANGULAR MATRICES

Received December 31, 2014

OF ORDER ≤ 8 OVER FIELDS OF CHARACTERISTIC 2

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It is proved that an arbitrary matrix from the group of unitriangular matrices $UT_n(K)$, $n \leq 8$, over an arbitrary field K is conjugate in this group to a matrix whose commutativity graph is a forest. From this fact we derive the strong reality and rationality of the group $UT_n(K)$ for $n \leq 8$ over an arbitrary field K of characteristic 2.

Keywords: strong real group, rational group, group of unitriangular matrices.

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Cite this article as:

O. A. Dubina, S. G. Kolesnikov, N. S. Managarova. The strong reality and rationality of groups of unitriangular matrices of order ≤ 8 over fields of characteristic 2, *Trudy Inst. Mat. Mekh. UrO RAN*, 2016, vol. 22, no. 1, pp. 71–83.