On the decomposition of elementary transvection in elementary group

Roxana Dryaeva, Vladimir Koibaev
North-Ossetia State University, Vladikavkaz, Russia

We consider the following data: an elementary net $\sigma = (\sigma_{ij})$ (elementary carpet) of the additive subgroups of a commutative ring (the net without the diagonal) of the order n, a derived net $\omega = (\omega_{ij})$, which depends of the net σ, the net $\Omega = (\Omega_{ij})$, which associated with the elementary group $E(\sigma)$, where $\omega \subseteq \sigma \subseteq \Omega$ and the net Ω is the least (complemented) net among the all nets which contain the elementary net σ. We prove that every elementary transvection $t_{ij}(\alpha)$ can be decomposed as a product of two matrixes M_1 and M_2, where M_1 is the element of the group $\langle t_{ij}(\sigma_{ij}), t_{ji}(\sigma_{ji})\rangle$, M_2 is the element of the net group $G(\tau)$ and the net τ has the representation $\tau = \begin{pmatrix} \Omega_{11} & \omega_{12} \\ \omega_{21} & \Omega_{22} \end{pmatrix}$.

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