Abstract. Let $T = \begin{bmatrix} X & Y \\ 0 & Z \end{bmatrix}$ be an $n$-square matrix, where $X, Z$ are $r$-square and $(n - r)$-square, respectively. Among other determinantal inequalities, it is proved that

$$\det (I_n + T^* T) \geq \det (I_r + X^* X) \cdot \det (I_{n-r} + Z^* Z)$$

with equality if and only if $Y = 0$.

**Mathematics subject classification (2010):** 15A45.

**Keywords and phrases:** Determinantal inequality, block triangular matrices.

**REFERENCES**