

B. Aupetit, **On log-subharmonicity of singular values of matrices**, *Studia Math.*, 122 (1997), no. 2, 195–200.

Abstract

Let F be an analytic function from an open subset Ω of the complex plane into the algebra of $n \times n$ matrices. Denoting by s_1, \dots, s_n the decreasing sequence of singular values of a matrix, we prove that the functions $\log s_1(F(\lambda)) + \dots + \log s_k(F(\lambda))$ and $\log^+ s_1(F(\lambda)) + \dots + \log^+ s_k(F(\lambda))$ are subharmonic on Ω , for $1 \leq k \leq n$.