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Title: Schur power convexity of Stolarsky means

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In this paper, the Schur convexity is generalized to Schur *f*-convexity, which contains the Schur geometrical convexity, Schur harmonic convexity and so on. When $f : \mathbb{R}_+ \to \mathbb{R}$ is defined by $f(x) = (x^m - 1)/m$ if $m \neq 0$ and $f(x) = \ln x$ if m = 0, the necessary and sufficient conditions for *f*-convexity (is called Schur *m*-power convexity) of Stolarsky means are given, which generalized and unified certain known results.

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