

title: Means in the theory of optics

abstract:

Comparing the brightness of colours on the screen and trying to find “Intermediate points” by R. Liedl and some of his students gave rise to the following two–place functional equation in the upper unit triangle

$$\Phi(a, b) = \Phi\left(a, \frac{a+b}{2}\right) = \Phi\left(\frac{a+b}{2}, b\right)$$

In this talk results on this equation are shown, the ideas of the proofs, and some generalisations.