Title: Invariant property for discontinuous mean-type mappings

Author(s): Paweł Pasteczka

It is known that if M, N are continuous two-variable means such that $|M(x,y) - N(x,y)| < |x-y|$ for every x, y with $x \neq y$, then there exists a unique invariant mean (which is continuous too).

We are looking for invariant means for pairs satisfying the inequality above, but their continuity is not assumed.

In this setting the invariant mean is no longer uniquely defined, but we prove that there exist the smallest and the biggest one. Furthermore, it is shown that there exists at most one continuous invariant mean related to each pair.

Address:
Paweł Pasteczka
Institute of Mathematics
Pedagogical University of Cracow
Podchorążych str. 2
30-084 Kraków
Poland