Nath, Prem; Singh, Dhiraj Kumar
A sum form functional equation and its relevance in information theory. (English)

Summary: The general solutions of a sum form functional equation containing four unknown mappings are investigated. The importance of these solutions in relation to various entropies in information theory is emphasised.

MSC:
39B52 Functional equations for functions with more general domains and/or ranges
94A17 Measures of information, entropy

Keywords:
sum form functional equation; additive function; multiplicative function; Shannon entropy; nonadditive entropies of degree α; information theory

Full Text: Link