Title: On Leibniz differences

Author(s): Bruce Ebanks

Cauchy differences, which are two-place functions of the form $F(x, y) = f(x) + f(y) - f(x + y)$, are characterized on abelian groups by means of the cocycle functional equation together with symmetry. Here we introduce an analogous result for functions of the form $L(x, y) = yf(x) + xf(y) - f(xy)$ for functions $L : K^2 \to K$ where $K$ is a field of characteristic 0. Such functions are called Leibniz differences.

Address:
Bruce Ebanks
Department of Mathematics
University of Louisville
Louisville, KY 40292
USA