

**Borelli Forti, Constanza**

**Solutions of a non-homogeneous Cauchy equation.** (English) Zbl 0697.39009

Rad. Mat. 5, No. 2, 213-222 (1989).

The author considers the following non-homogeneous Cauchy functional equation  $\phi(x_1 + x_2) - \phi(x_1) - \phi(x_2) = d(x_1, x_2)$ , where  $d: G \times G \rightarrow B$  is a given function satisfying certain solvability conditions and an unknown function  $\phi$  is from an abelian group  $G$  into a Banach space  $B$ . The solutions of the equation above is given explicitly, assuming that  $d$  has a bounded Cauchy difference of some order.

Reviewer: [M.C.Zdun](#)

**MSC:**

[39B99](#) Functional equations and inequalities

[39B52](#) Functional equations for functions with more general domains and/or ranges

Cited in 11 Documents

**Keywords:**

non-homogeneous Cauchy functional equation; abelian group; Banach space