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Journal of Convex Analysis 26 (2019) 543–562

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### **Asymptotic Hyers-Ulam Stability or Superstability for Generalized Linear Equations by Unilateral Perturbations**

In relation to the famous problem of Ulam “Give conditions in order for a linear mapping near an approximated linear mapping to exist”, we consider the stability or superstability of generalized linear equation

$$f(x + y) - f(x) - f(y) = B[\phi(x) + \phi(y)]$$

by left or right perturbations with some hypotheses of convexity or concavity, and – in a forthcoming paper – apply our conclusions to the generalized exponential equation

$$\frac{f(x + y)}{f(x)f(y)} = [\phi(x)\phi(y)]^B.$$

**Keywords:** Hyers-Ulam stability, superstability, asymptotic stability, linear equation, exponential equation.

**MSC:** 39B62, 26A51