STABILITY OF AN INCOMPLETE
GAMMA–TYPE FUNCTIONAL EQUATION

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Abstract. We investigate the Hyers-Ulam-Rassias stability of an incomplete gamma-type func-
tional equation
\[
f(\phi_1(x_1), \ldots, \phi_n(x_n), \psi_1(y_1), \ldots, \psi_m(y_m))
= \theta(x_1, \ldots, x_n, y_1, \ldots, y_m)f(x_1, \ldots, x_n, y_1, \ldots, y_m) + \lambda(x_1, \ldots, x_n, y_1, \ldots, y_m)
\]
with a restricted domain. By this result we obtain the stability of the incomplete gamma functional equation
\[
f(x + 1, y) = xf(x, y) + e^{-y}(y)^x
\]
with a restricted domain.

Key words and phrases: Functional equation, stability of functional equation, Hyers-Ulam-Rassias
stability, incomplete gamma function.

REFERENCES


