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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 functional equation

$$f(\phi_1(x_1),\cdots,\phi_n(x_n),\psi_1(y_1),\cdots,\psi_m(y_m)) = \theta(x_1,\cdots,x_n,y_1,\cdots,y_m)f(x_1,\cdots,x_n,y_1,\cdots,y_m) \quad +\lambda(x_1,\cdots,x_n,y_1,\cdots,y_m)$$

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.

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