HYERS–ULAM STABILITY OF FIRST ORDER LINEAR PARTIAL DIFFERENTIAL EQUATIONS WITH CONSTANT COEFFICIENTS

SOON-MO JUNG AND KI-SUK LEE

Abstract. In this paper, we prove the Hyers-Ulam stability of first order linear partial differential equations with constant coefficients

\[ au_x(x,y) + bu_y(x,y) + cu(x,y) + d = 0, \]

where \( a, b \in \mathbb{R} \) and \( c, d \in \mathbb{C} \) are constants with \( \Re(c) \neq 0 \) and \( \Re(c) \) denotes the real part of \( c \).


Key words and phrases: Hyers-Ulam stability, partial differential equation, inequality.

REFERENCES