FORCED OSCILLATION OF FRACTIONAL PARTIAL DIFFERENTIAL EQUATIONS WITH DAMPING TERM

HUANHUAN KONG AND RUN XU

Abstract. In this paper, the forced oscillation of fractional partial differential equations of the form

\[ D_{t}^{1+\alpha} u(x,t) + p(t) D_{x}^{\alpha} u(x,t) = a(t) \Delta u(x,t) + \sum_{i=1}^{m} a_{i}(t) \Delta u(x,t - \tau_{i}) \]

\[ -q(x,t) \int_{0}^{t} (t - \xi)^{-\alpha} u(x,\xi) d\xi + f(x,t) \]

are investigated, and some examples are given to illustrate the useful of our results.


Keywords and phrases: Forced, oscillation, fractional, partial differential equations.

REFERENCES


