

THE CAUCHY PROBLEM FOR ONE EQUATION OF SOBOLEV TYPE IN THE CLASS OF TEMPERED DISTRIBUTIONS

A. L. Pavlov

We give necessary and sufficient conditions for the existence of a solution to the Cauchy problem for the equation $\Delta^k \partial_t^2 u + (-1)^k u = 0$ in the space of tempered distributions.

Key words and phrases: Cauchy problem, equation of Sobolev type, regularization of a distribution.

Pavlov Alexandr Leonidovich

Donetsk National University, Donetsk.
Institute of Applied Mathematics
and Mechanics, Donetsk.
E-mail: alex4909@gmail.com

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