

Original Articles

Dissipation and Decay Estimates

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摘要 We establish the optimal rates of decay estimates of

global solutions of some abstract differential equations, which

include many partial differential equations. We provide a general

treatment so that any future problem will enjoy the decay

estimates displayed here as long as the general hypotheses are

satisfied. The main hypotheses are the existence of global

solutions of the equations and some growth control of the Fourier

transform of the solutions. We establish the optimal rates of

decay of the solutions for initial data in different spaces. The

main ingredients and technical tools are the Fourier splitting

method, the iteration skill and the energy estimates.

关键词 [Partial differential equations, global solutions, decay estimates, Fourier splitting technique](#)

分类号

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Abstract

Key words

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