

C-semigroups and almost periodic solutions of evolution equations

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Abstract: The paper is concerned with the existence of almost periodic mild solutions to evolution equations of the form $u''(t)=Au(t)+f(t)$, where A generates a C -semigroup and f is almost periodic. Using the evolution C -semigroup associated with the equation under consideration, we obtain various sufficient conditions for the existence of almost periodic solutions to (*) which extend previous ones to a more general class of ill-posed equations involving C -semigroups. ?? 2004 Elsevier Inc. All rights reserved.

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