SOME STABILITY ESTIMATES FOR CAUCHY PROBLEMS OF ELLIPTIC EQUATIONS [1]

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Abstract

In this paper, we consider Cauchy problems of elliptic equations on a cylindric domain in $^{n+1}$. A series of stability estimates for the Cauchy problems in Sobolev spaces are derived, which turn out to be optimal. From the stability estimates, several regularization methods are proposed for which error estimates are available. The regularization methods can be used for computing numerical approximations which will be demonstrated by the classical Hadamard example.

[1] J. Inv. Ill-Posed Problems **5**, No. 5(1997), 437-454.