
BOLLETTINO UNIONE MATEMATICA ITALIANA

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by H. BEIRÃO DA VEIGA

In the above paper, equation (5) in Theorem 1.3 is incorrect. The theorem may be stated as follows.

THEOREM 1.3 – *Set $\omega_0 = \operatorname{curl} u_0$, where u_0 is the initial data to the initial-boundary value problem (1), (2). There is a constant $C = C(\Omega)$ such that if*

$$(1) \quad M(t) \leq \frac{C \nu}{\|\omega_0\|},$$

for almost all $t \in (0, T)$, then the solution u is strong and unique in $[0, T]$.

The estimate presented in the first row of page 232 is obviously wrong. It should be replaced by

$$\|\operatorname{curl} \omega\| \geq c_0 \|\omega\|,$$

where we appeal to the second boundary condition in equation (2), to $\operatorname{div} \omega = 0$, and to the fact that Ω is assumed to be simply-connected. The proof of the theorem follows immediately.

We take the occasion to note that distinct, but similar, versions of the above sufficient condition for regularity may be obtained by suitable changes in our proof.

We also remark that from theorem 1.3 it follows, in particular, that

$$\|\omega_0\| \leq C \nu$$

is a sufficient condition for regularity. Note that this condition agrees, from the scaling point of view, to the condition (6.98), Chapter I, of the well know volume *Quelques Méthodes de Résolution des Problèmes aux Limites Non Linéaires*, Dunod, Paris, 1969, by J.-L. Lions.

The author regrets the above inconvenience.

