

WRITE THE TITLE HERE WITH SMALL (MINUSCULE) LETTERS *

HENRIQUE R. COSTA [†] & LUIS A. SILVA [‡]

Abstract

This is the template for preparing the manuscript for submission to ENAMA. It is not allowed to use MACROS, or abbreviations or new names of the mathematical environment commands, for example, `\La` to represent the Laplacian, instead of LaTeX command `\Delta`. Also, do not add new commands such as: “user-package”, “newcommand”, etc. The manuscript must have only two (2) pages. This is an informative text and MUST BE REMOVED FROM YOUR WORK.

1 Introduction

The equations are listed sequentially in the text, numbered on the right and using the command `\label{}` to identify them and the command `\eqref{}` whenever necessary to mention them in the text. For example,

$$u''(x,t) - \mu(t)\Delta u(x,t) = 0 \quad \text{in } Q, \tag{1.1}$$

Equation (1.1) was generated using the following commands

```
\begin{eqnarray}\label{1.1}
u''(x,t) - \mu(t)\Delta u(x,t) = 0 \quad \text{in } Q,
\end{eqnarray}
```

with initial and boundary conditions

$$\begin{aligned} u(x,0) &= u_0(x), & u'(x,0) &= u_1(x) & \text{in } \Omega, \\ u(x,t) &= 0 & \text{on } \Gamma \times]0, \infty[, \end{aligned}$$

where u is the displacement, Δ denotes the Laplace operator and μ is a positive real function, introduced by [1]. Existence and uniqueness results can be found in [2, 3].

To generate the figures is recommended to use the following structure:

```
\begin{figure}
\includegraphics[scale=]{}
\caption{}
\end{figure}
```

They are cited in the text via the command `\eqref{}` with the name of “label” in brackets, analogously the equations.

Finally, at the end the proof use `\qcd` or ■

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[†]Instituto de Matemática, UFRJ, RJ, Brasil, costa@ufrj.br

[‡]IMECC, UNICAMP, SP, Brasil, silva@ime.unicamp.br

2 Main Results

Theorem 2.1. *If $u_0 \in H_0^1(\Omega) \cap H^2(\Omega)$ and $u_1 \in H_0^1(\Omega)$ then the system has a unique solution in the class*

$$u \in L^\infty(0, \infty; H_0^1(\Omega) \cap H^2(\Omega)), \quad (2.1)$$

$$u' \in L^\infty(0, \infty; H_0^1(\Omega)), \quad (2.2)$$

$$u'' \in L^\infty(0, \infty; L^2(\Omega)). \quad (2.3)$$

Proof ...

References are introduced via the command `\cite{}` and the reference list (bibliography) at the end of this manuscript can be generated as follows

```
\begin{thebibliography}{00}
\bibitem{}
\end{thebibliography}
```

References

- [1] LIONS, J. L. - *Quelques méthodes de résolution des problèmes aux limites non linéaires.*, Dunod-Gauthier Villars, Paris, First edition, (1969).
- [2] SOBOLEV, S. I. - *Applications de analyse fonctionnelle aux équations de la physique mathématique*, Léninegrad, (1950).
- [3] COSTA, R. H. & SILVA, L. A. - *Existence and boundary stabilization of solutions*, Analysis Journal, **10**, (2010), 422-444.