



INCAS - National Institute for Aerospace Research "Elie Carafoli"  
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ISMMA - Institute of Mathematical Statistics  
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"Gheorghe Mihoc - Calus Iacob"



University of Bucharest



"Politehnica" University of Bucharest  
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The 39<sup>th</sup> "Caius Iacob" Conference on Fluid Mechanics and its Technical Applications  
28 – 29 October 2021, Bucharest, Romania

**ABSTRACT TITLE**

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**ABSTRACT**

The **abstract** should be prepared in English, using Times New Roman font, 11pt, italic. Paragraph: justify; spacing: before – 24 pt, line spacing: single.

The Abstract is followed by the **Key Words**, the distance between them is 6pt, and the distance between Key Words and the first chapter is 18pt.

*References* should be cited in the text in square brackets [1] and should be listed after the text as it is shown below.

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[1] C. Ohtar, A. Fujita, P. N. Nikiforov and M. K Santa, Active flutter suppression for two-dimensional airfoils, *Journal of Guidance, Control and Dynamics*, vol. **14**, no. 2, pp. 283-293, 1991. *(Times New Roman, 9pt, single spaced)*

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Example:

## Robust adaptive control laws

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**Abstract:** *This paper continues recent research of the authors, considering the control synthesis in the presence of a parametric uncertainty, with application to electrohydraulic servos actuating primary flight controls. The uncertain parameter is adjusted during the control process, using in synthesis the methods of Control Lyapunov Functions and backstepping. The obtained control law, containing a dynamic updating of uncertain parameter, renders the closed loop system stable and guarantees asymptotic tracking of position references. Numerical simulations are reported from viewpoint of servo time constant performance.*

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**Key Words:** *nonlinear control synthesis, backstepping, uncertain parameters, Control Lyapunov Function, Barbalat's Lemma, electrohydraulic servo.*