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STUDY OF THE FLUTTER OF A HEREDITARY-DEFORMABLE AIRFOIL

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This paper represents a general methodology for the vibration of the hereditary-deformable airplane in the flow field. The airplane has a finite number of degrees of freedom. Governing equations are described by variation principle of the hereditary theory of viscoelasticity. In subsonic flight mode external forces are determined by stationary state hypothesis. As a result can be obtained weekly-singular integral-differential equation and this equation is a mathematical model of the current task.

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