OPTIMIZING THE PROPULSION OF A HYPERSONIC ACCELERATOR AIRCRAFT OF A TWO-STAGE AEROSPACE SYSTEM

© 2008 V. L. Balakin, A. A. Bebyakov, A. G. Kotchyan

Samara State Aerospace University

The paper deals with the propulsion of a hypersonic accelerator aircraft acting as the first stage of a two-stage aerospace system. Optimal and approximately optimal angle of attack programmes are defined on condition that fuel consumption is minimal. The impact of the trajectory inclination finite angle magnitude on the pattern of control programmes and mechanical trajectories is analysed.

Aerospace system, hypersonic accelerator aircraft, angle of attack, control programme, optimization.

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Balakin, Victor Leonidovitch, head of department of flight dynamics and control systems, professor, doctor of technical science, Samara State Aerospace University named after academician S. P. Korolyov. Area of research: dynamics and control of aircraft propulsion.

Bebyakov, Alexander Alexandrovitch, post-graduate student, Samara State Aerospace University named after Academician S. P. Korolyov. Area of research: dynamics and control of aircraft propulsion.

Kotchyan, Antonina Gratchevna, assistant, Samara State Aerospace University named after Academician S. P. Korolyov. Area of research: dynamics and control of aircraft propulsion.