

ANALYSIS OF THE STRUCTURE OF THE THIRD VARIATION OF ROLL MOMENT COEFFICIENT DURING HYPERSONIC FLOW ABOUT BODIES OF REVOLUTION WITH SMALL SPATIAL SURFACE VARIATIONS ON THE BASIS OF DIFFERENTIAL LOCALITY HYPOTHESIS METHOD

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The paper deals with the problem of evaluating the constituents of the third order of roll moment smallness during supersonic flow at small angles of attack of bodies close to bodies of revolution. An expression is derived on the basis of the method of differential locality hypothesis, and the structure of the third variation of roll moment coefficient is analysed, its complete composition is defined. Integral expressions of seven constituents of the third variation are obtained, physical interpretation of each is given.

Hypersonic flow, small angles of attack, small surface variations, roll moment, method of differential locality hypothesis.

Danilkin Vyacheslav Andreyevitch, first deputy of general designer, candidate of economic science, joint-stock company “Makeyev State Rocket Centre”, e-mail: src@makeyev.ru. Area of research: aerodynamics and thermodynamic processes during the propulsion of high-speed aircraft in the atmosphere, rocket construction.

Kostin Gennady Fedotovitch, senior researcher of the joint-stock company “Makeyev State Rocket Centre”, candidate of technical science, associate professor, e-mail: src@makeyev.ru. Area of research: aerodynamics and thermodynamic processes during the propulsion of high-speed aircraft in the atmosphere.

Mokin Yuri Alexandrovitch, leading researcher, candidate of physical and mathematical science, associate professor, joint-stock company “Makeyev State Rocket Centre”, e-mail: src@makeyev.ru. Area of research: aerodynamics and thermodynamic processes during the propulsion of high-speed aircraft in the atmosphere.

Tikhonov Nikolay Nikolayevitch, doctor of technical science, professor, head of the department of aerohydrodynamics and thermodynamics, joint-stock company “Makeyev State Rocket Centre”, e-mail: src@makeyev.ru. Area of research: aerodynamics and thermodynamic processes during the propulsion of high-speed aircraft in the atmosphere.