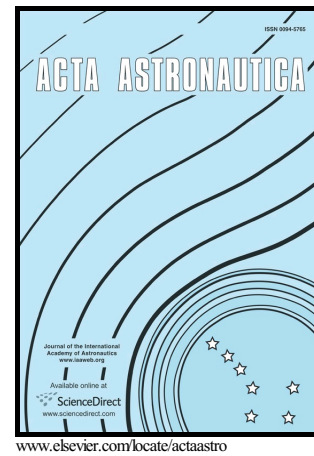


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Improvement of Aerodynamic Characteristics of a Thick Airfoil with a Vortex Cell in Sub- and Transonic Flow

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Abstract

The modified SST model (2005) is verified using Rodi– Leschziner–Isaev’s approach and the multiblock computational technologies are validated in the VP2/3 code on different-structure overlapping grids by comparing the numerical predictions with the experimental data on transonic flow around an NACA0012 airfoil at an angle of attack of 4° for $M=0.7$ and $Re=4\times 10^6$. It is proved that the aerodynamic characteristics of a thick (20% of the chord) MQ airfoil mounted at an angle of attack

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