عنوان مقاله:

COMPUTATIONAL LAMINAR FLOW CONTROL OVER A POROUS FLAT PLATE

نویسندگان:

Ali Shadavakhsh - *Undergraduate Student, Department of Mechanical Engineering Isfahan University of Technology, Isfahan, Iran*

Ahmad Sedaght - *Assistant Professor, Department of Mechanical Engineering Isfahan University of Technology, Isfahan, Iran*

خلاصه مقاله:

The history of laminar flow control (LFC) from 1930s to present has been surveyed and the current state of the technology is assessed. The focus has been on the development of suction type LFC techniques for aerofoil surfaces and their use in aircraft design. As a preliminary investigation, the compressible Navier- Stokes equations have been solved for flow over a porous flat plate using a high-resolution TVD scheme. Computational results were in good agreement with the analytical solutions of Blasius and Iglisch using several suction rates. The skin friction coefficient and the drag coefficient have been accurately predicted.

کلمات کلیدی:
LFC – TVD Schemes – Navier-Stokes Equations

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/27231