

عنوان مقاله:

COMPUTATIONAL FLOW SEPARATION CONTROL USING ELECTROMAGNETIC FIELDS

محل انتشار:

چهاردهمین کنفرانس سالانه مهندسی مکانیک (سال: 1385)

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نویسندگان:

Akbari - Postgraduate student Department of Mechanical Engineering Isfahan University of Technology, Isfahan, Iran

Sadeghat - Assistant professor Department of Mechanical Engineering Isfahan University of Technology, Isfahan, Iran

Azimian - Associate professor Department of Mechanical Engineering Isfahan University of Technology, Isfahan, Iran

خلاصه مقاله:

Flow separation control by electromagnetic field was studied for a flat plate at high angles of incidence. Lorentz force were used as the model for the electromagnetic field and incorporated within a compressible Navier-Stokes flow solver. The compressible solver is based on an implicit, high resolution, and Total Variation Diminishing (TVD) scheme. The computational results were qualitatively compared with experimental observations. For a range of incidence angles, the electromagnetic field has completely prohibited flow separation and enhanced lift coefficient. .However, the overall drag coefficient has been slightly increased due to the increase in skin friction

كلمات كليدى: Electromagnetic Field, Lorentz Force, Flow Separation, Navier-Stokes , TVD Schemes

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