Steady Flow of an Incompressible Perfectly Conducting Fluid Past a Thin Airfoil

Stelian Grădinaru
Facultatea de Matematică şi Inforamtică, Universitatea Spiru Haret

Abstract:
We consider the linearized Euler and Maxwell equations and Ohm's law. We calculate the fundamental matrix and give integral representations for the velocity, magnetic induction and pressure. We use the boundary (slip) condition to obtain an integral equation for the jump of the pressure. We give some graphic representations of the velocity and magnetic induction for the case of the flat plate.
Keywords: linearized system; fundamental matrix; integral representation
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