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Effect of Adverse Pressure Gradient on a Fluctuating Velocity over the Co-Flow Jet Airfoil

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Abstract : The boundary layer separation and new active flow control of a NACA 0025 airfoil were studied experimentally. This new flow control is sometimes known as a co-flow jet (cfj) airfoil. This paper presents the fluctuating velocity in a wall jet over the co-flow jet airfoil subjected to an adverse pressure gradient and a curved surface. In these results, the fluctuating velocity at the inner part increasing by increased the angle of attack up to 12^o and this has due to the jet energized, while the angle of attack 20^o has different. The airfoil cord based Reynolds number has 10⁵.

Keywords : adverse pressure gradient, fluctuating velocity, wall jet, co-flow jet airfoil
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