

Exact and Approximate Gas Dynamics Using the Tangent Gas

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Steady, inviscid, irrotational flow of a perfect gas in two dimensions is considered in the tangent gas approximation. A fast and accurate method of solution is proposed and solved numerically. Comparison of tangent gas and exact flows are presented. Tangent gas solutions when used as the first step in the iterative solution of the exact flowfield are shown to give substantial reduction in computational time. © 1986 Academic Press, Inc.

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