

On Stability of Oblique Shock Front

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Consider a supersonic flow arrives along a straight wall with a sharp corner, the flow traveling with constant speed is parallel to one leg of the angle and turns discontinuously in to the direction of the other leg. The two different states are connected by a straight oblique shock front, provided the turning angle is below a certain bound. Two possible shocks satisfy the R-H condition and the entropy condition. We analyze the stability of these two shocks, and show that the weak one is stable.