

## Lecture F15 Mud: Shock Wave Relations

1. **What is a shock wave physically?** (1 student)

A discontinuity in nearly all the flow variables. There are many non-fluid analogs to a shock, such as the traffic example in the notes.

2. **When is the stagnation enthalpy not constant?** (1 student)

If there is combustion. A detonation wave in a fuel-vapor/air mixture is a shock wave where combustion occurs at the shock. This is a non-adiabatic shock wave. Aerodynamic shock waves are normally adiabatic.

3. **Would plotting  $M_2^2$  vs  $M_1^2$  reveal anything?** (1 student)

I never tried it, but I don't think it would.

4. **No mud** (5 students)