

Supersonic Flow over Multiple Wedges (shock-on-shock interaction)

Sahil Deepak Kukian

Department of Aeronautical and Automobile Engineering
Manipal Institute of Technology, Manipal, Karnataka, India

ABSTRACT

The objective of the present project is simulate and study the shock on shock interaction formed due to the multi-angle wedge in supersonic flow conditions using the OpenFoam. The geometry and mesh are creating in Salome which is also an openSource tool. Also the patch conditions and other necessary changes that should be done to the case setup are going to be shown in this project. The compressible solver 'rhoCentralFoam' is going to be used to run this simulation. The results obtained will then be compared with literature. Details regarding the geometry in the XY plane are as shown below in Fig-1

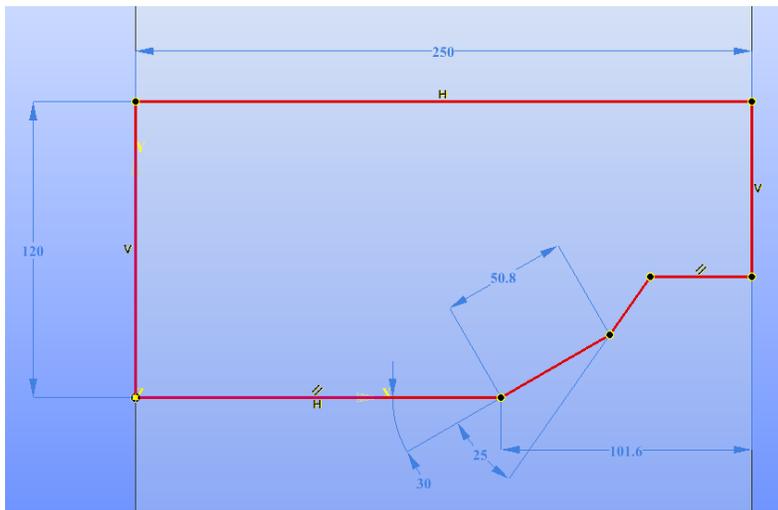


Fig- 1 2D Geometry Dimensions