

1145-35-467

S Weng*, Room 216, Northeast buliding, College of Science, Wuhan University, Wuhan, Peoples Rep of China. *Subsonic and Transonic shock flows in bounded nozzles.*

This talk basically contains two parts. Part I will treat the structural stability of the radial symmetric transonic shock solution under an axisymmetric perturbation of the nozzle wall. The axisymmetric perturbation of supersonic incoming including a nonzero swirl velocity is also considered. Part II will give a new decomposition of 3D steady Euler system which we call it as deformation-curl decomposition. This is based on the new reformulation of the density equation by using the Bernoulli's law. (Received September 06, 2018)