

# Weekly Research Report

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## 1 Current Research Direction

## 2 Research Performed In the Past 24 hours

### 2.1 Current Validation Work

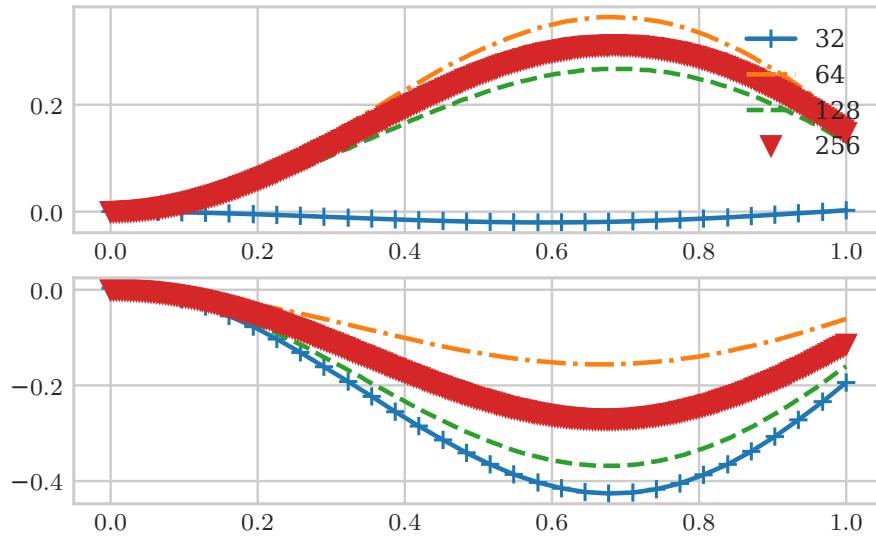
A comparison was conducted for a hollow cylinder undergoing uniform flow with acoustic liners along the outer duct perimeter. The azimuthal mode number, reduced frequency, mach number and duct liner admittance is reported below,

$$m = 2$$

$$k = \frac{\omega r_T}{A_T} = -1$$

$$M_x = 0.5$$

$$\eta_T = 0.72 + 0.42i$$



I have reported the propagating modes for the first three axial wavenumbers at four different grids

## 3 Issues and Concerns

The results look odd.. and do not seem to follow any particular trend. I have triple checked my data but the issue may not be apparent for these axial wavenumbers

## 4 Planned Research

See what the modes look like for all 9 wavenumbers in each case where we have cases to match

