

Daily Research Report

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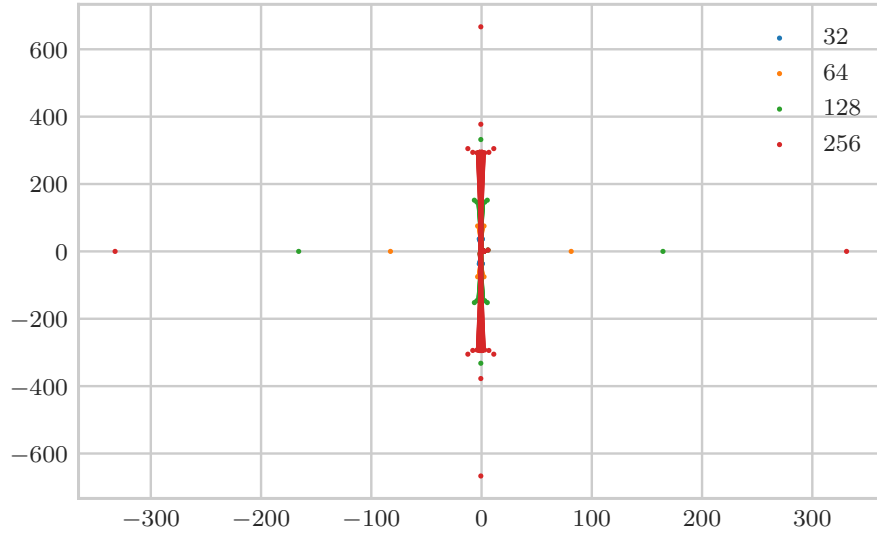


Figure 1: Discrete Acoustic Disturbances: Cylinder, Uniform Mean Flow with Liner (2nd order scheme).

1 Current Research Direction

Automate the post processing for the axial wavenumbers such that the code verification is easier for the user.

2 Research Performed

The scatter plots show the difference between the second order and fourth order schemes. Note how the cut on line is much more defined. The plots of the propagating and decaying modes are shown below. For Mode 1, there is a zero crossing early that is hard to see but is apparent in the tables of data that there is indeed a sign

3 Planned Research

A for loop and naming convention is needed to loop through all the possible data sets so there isnt error from the user.

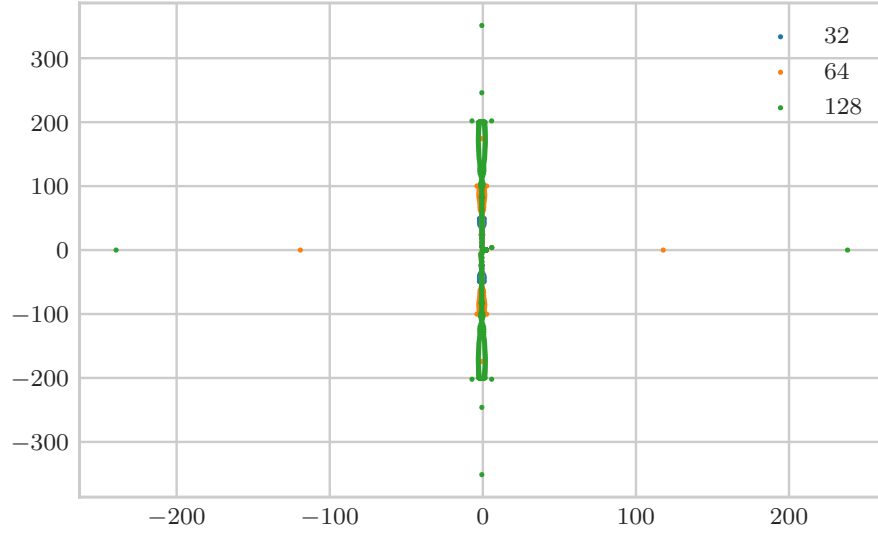
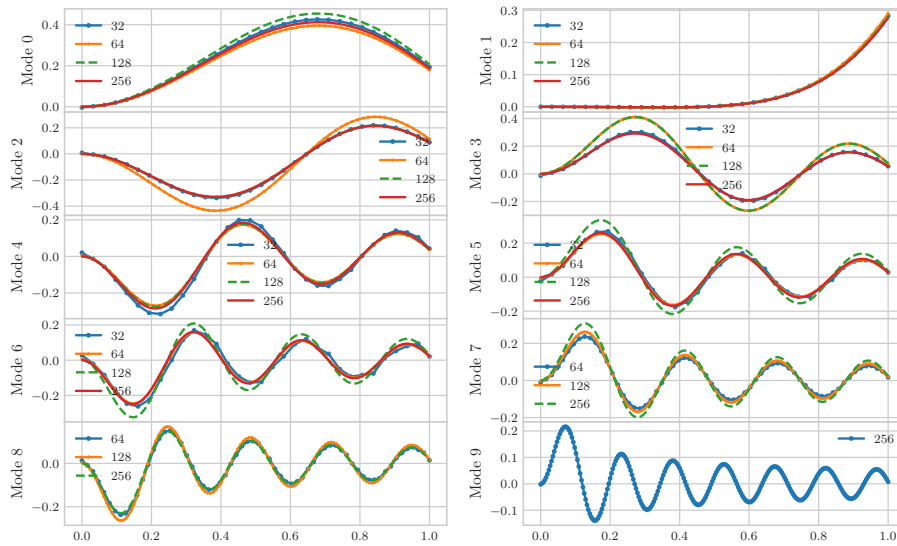
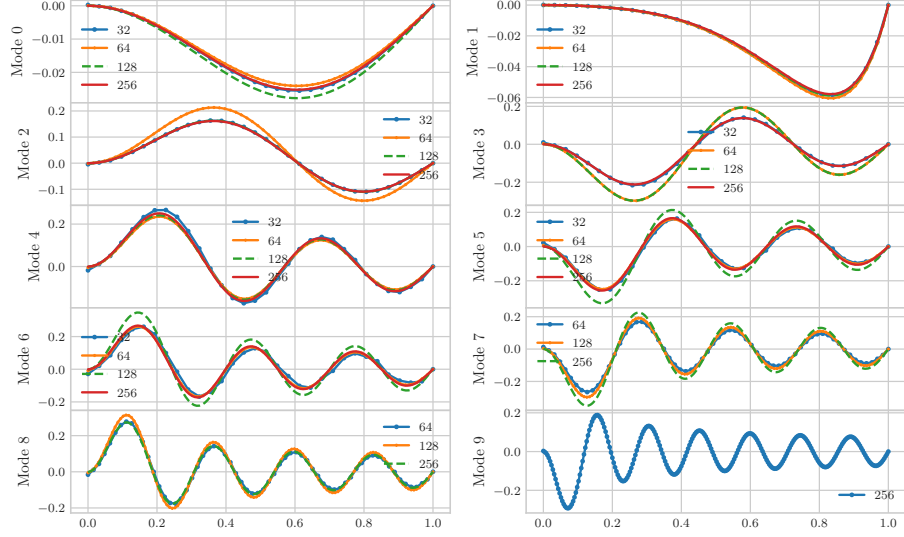


Figure 2: Discrete Acoustic Disturbances: Cylinder, Uniform Mean Flow with Liner (4th order scheme).

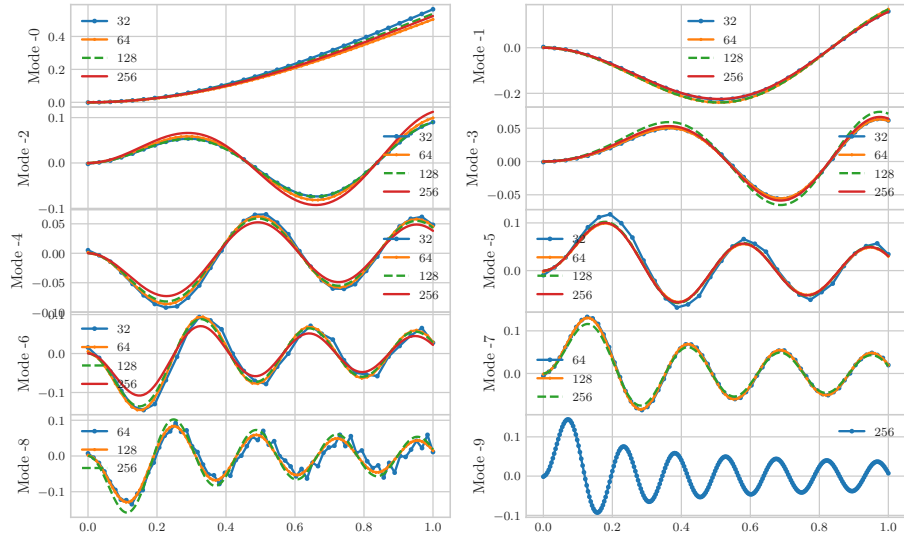
Propagating Modes [Real]



Propagating Modes [Imaginary]



Decaying Modes [Real]



Decaying Modes [Imaginary]

