IMPERIAL

Consistency between Nonlinear and linear solver

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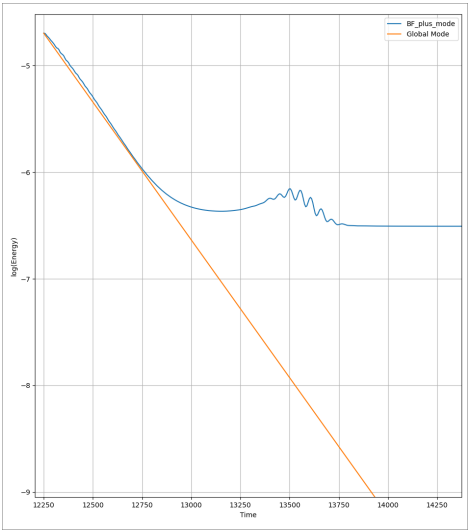
1st test

- Run case w $= 16.35\delta^*$ (initially stable with smoothing techniques (SVV)) without SVV and without spectral HP dealiasing (talk with Spencer) as well.
- Result: still naturally stable steady state.
- I got a lot of problems though with the outflow BCs.

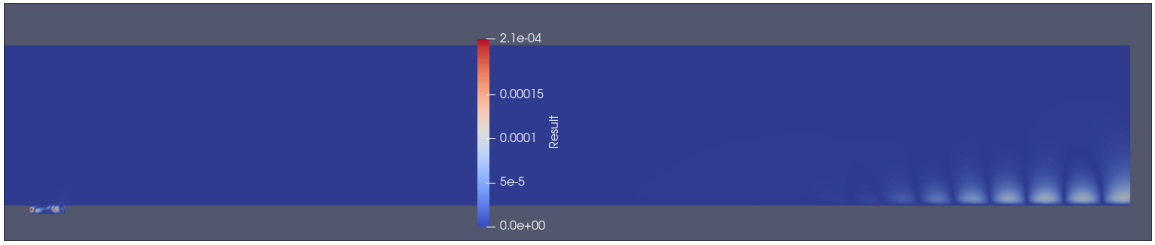
2st test

- With the runs already done (e.g. baseflow and eigenmodes with SVV and spectral HP dealiasing), we wanted to observed the decay in energy of the most unstable mode using the nonlinear solver (with initial conditions the baseflow plus the most unstable mode).



v-component L2 norm comparison

weird wiggles



3rd test

- Compute growth rate of global modes for a case with wider gap.
- I chose w $= 18\delta^*$ but I **forgot** to disable the SVV.
- Still running the EV solver, but it looks again negative growth rate.
- Could it be that SVV is damping too much the modes?