Linear

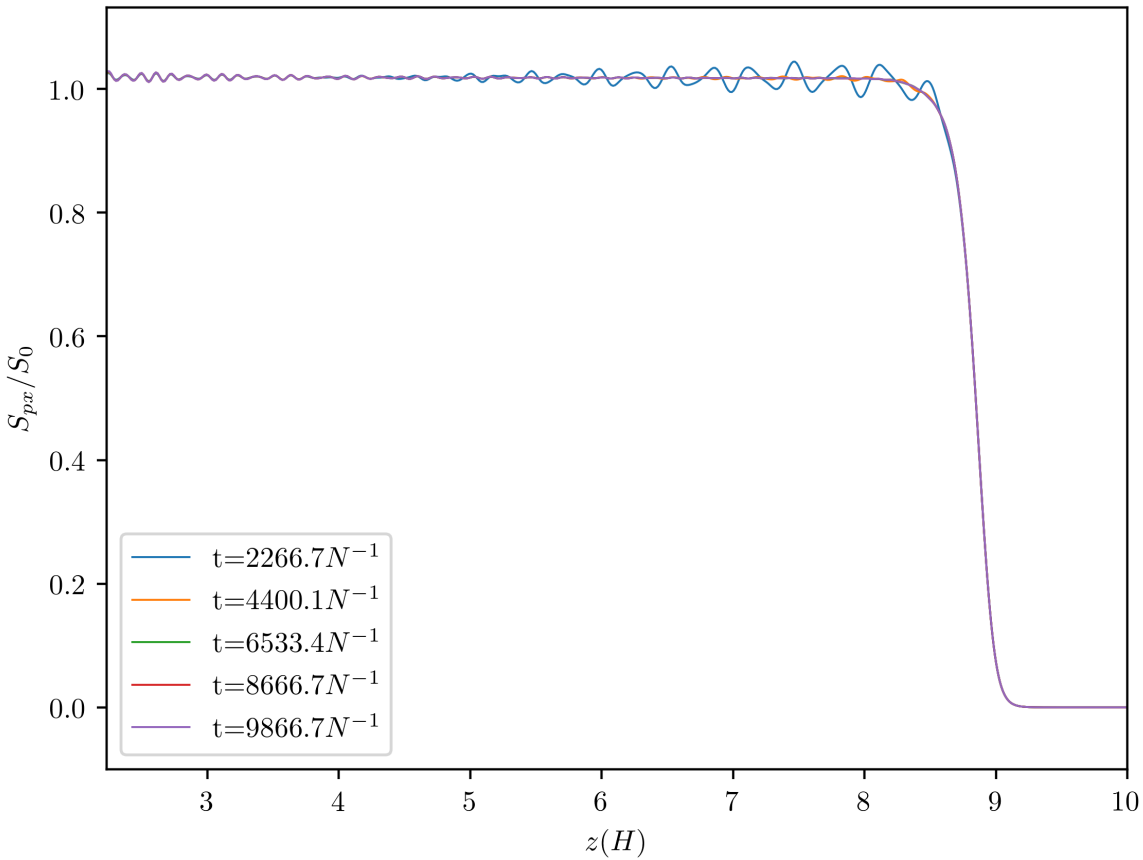


Figure: Linear simulation.

New Plotting for Nonlinear

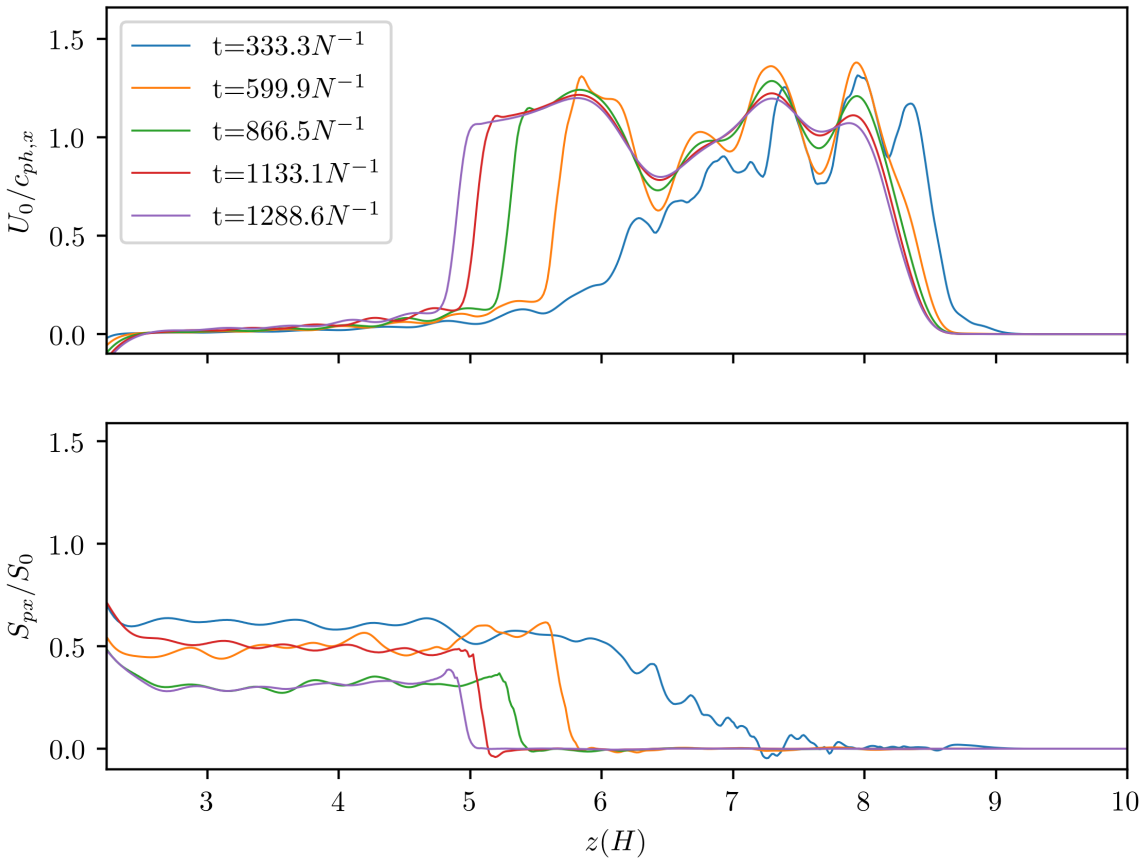
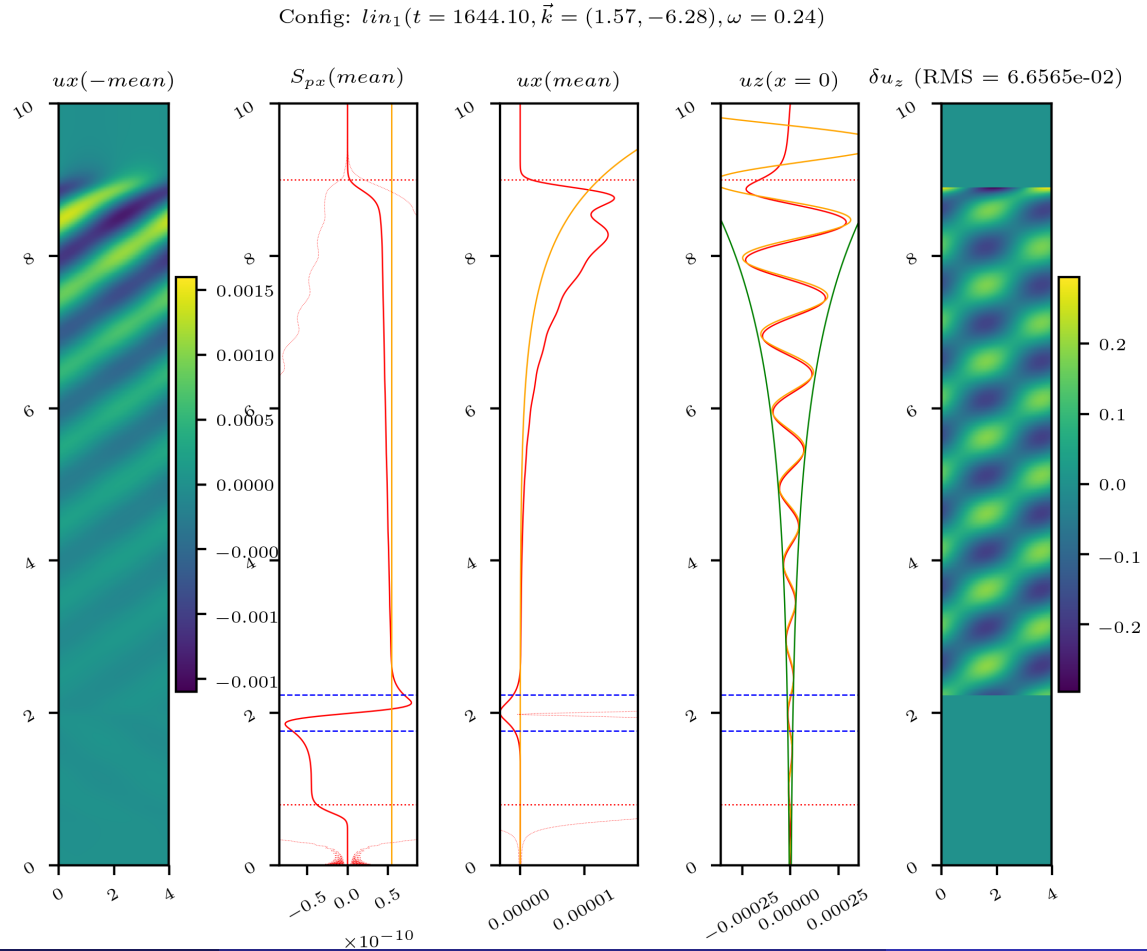


Figure: Nonlinear simulation, new plotting methodology. Feedback?

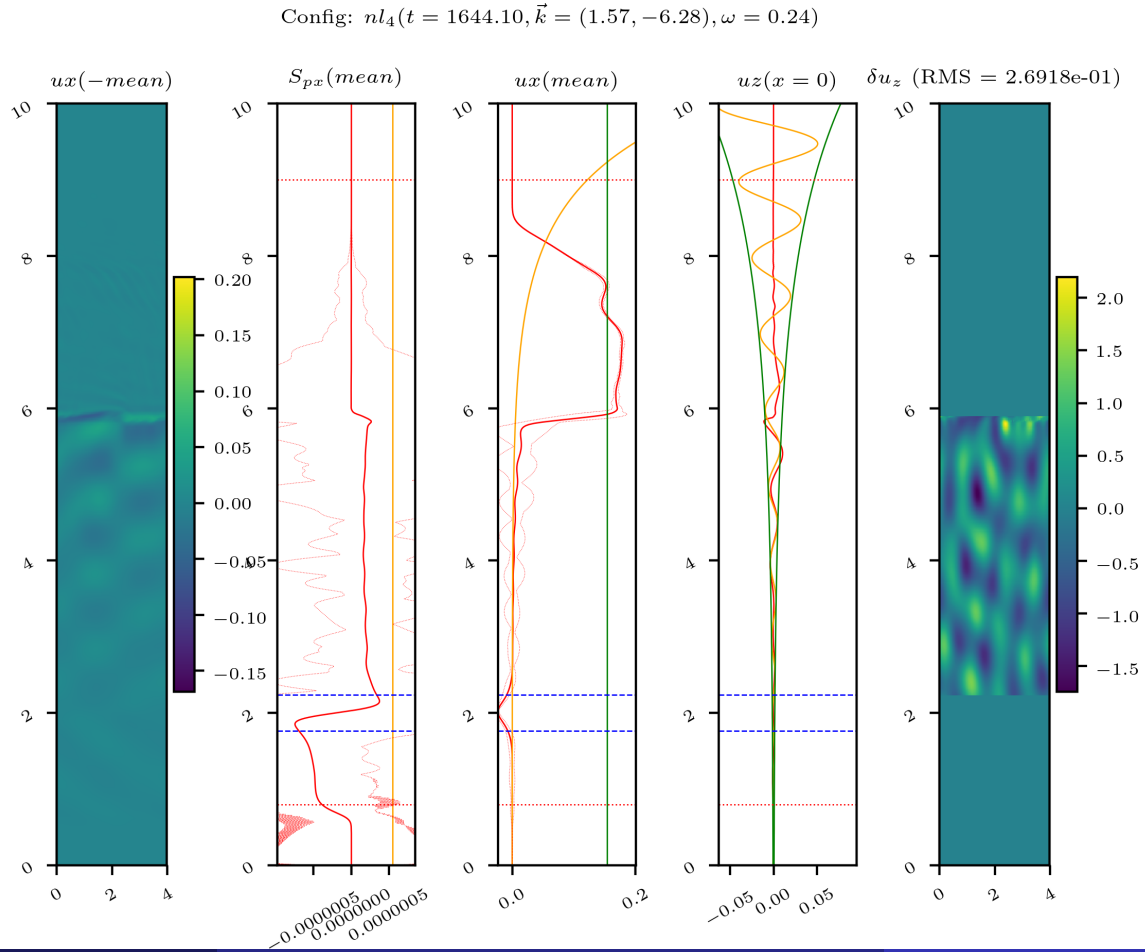
Reflection?

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathbf{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.



Reflection (nl4)

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathrm{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.



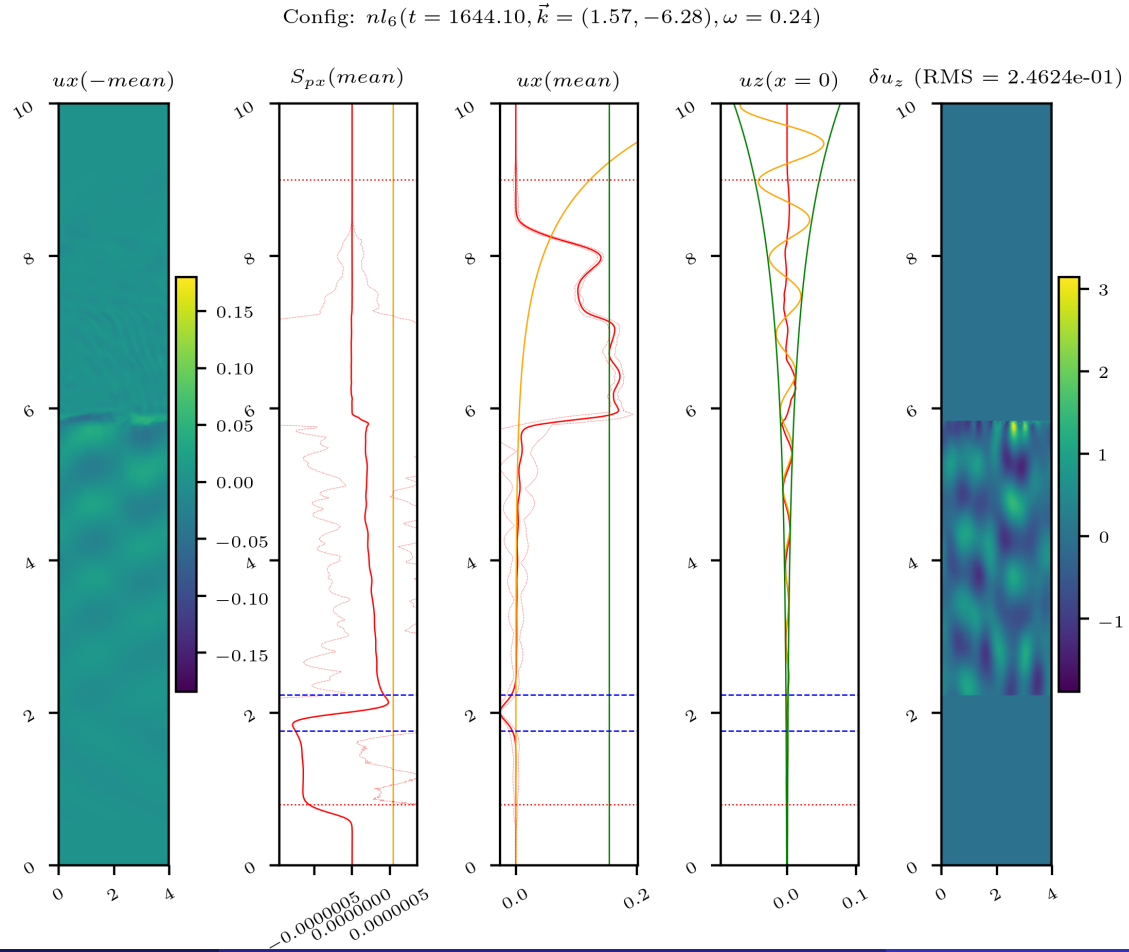
Reflection?

Name	RMS	Notes
lin0	0.077	Almost-no visc
lin1	0.067	Same visc as nl4
nl1 (low)	0.132	half-res nl1, higher visc
nl1	0.120	0.7ν
nl2	0.213	0.4ν
nl3	0.179	0.4ν (double A)
nl4	0.269	0.3ν
nl5	0.207	0.3ν (double k_z)
nl6	0.246	0.2ν
nl7	0.358	0.1ν

Table: Table of RMS values.

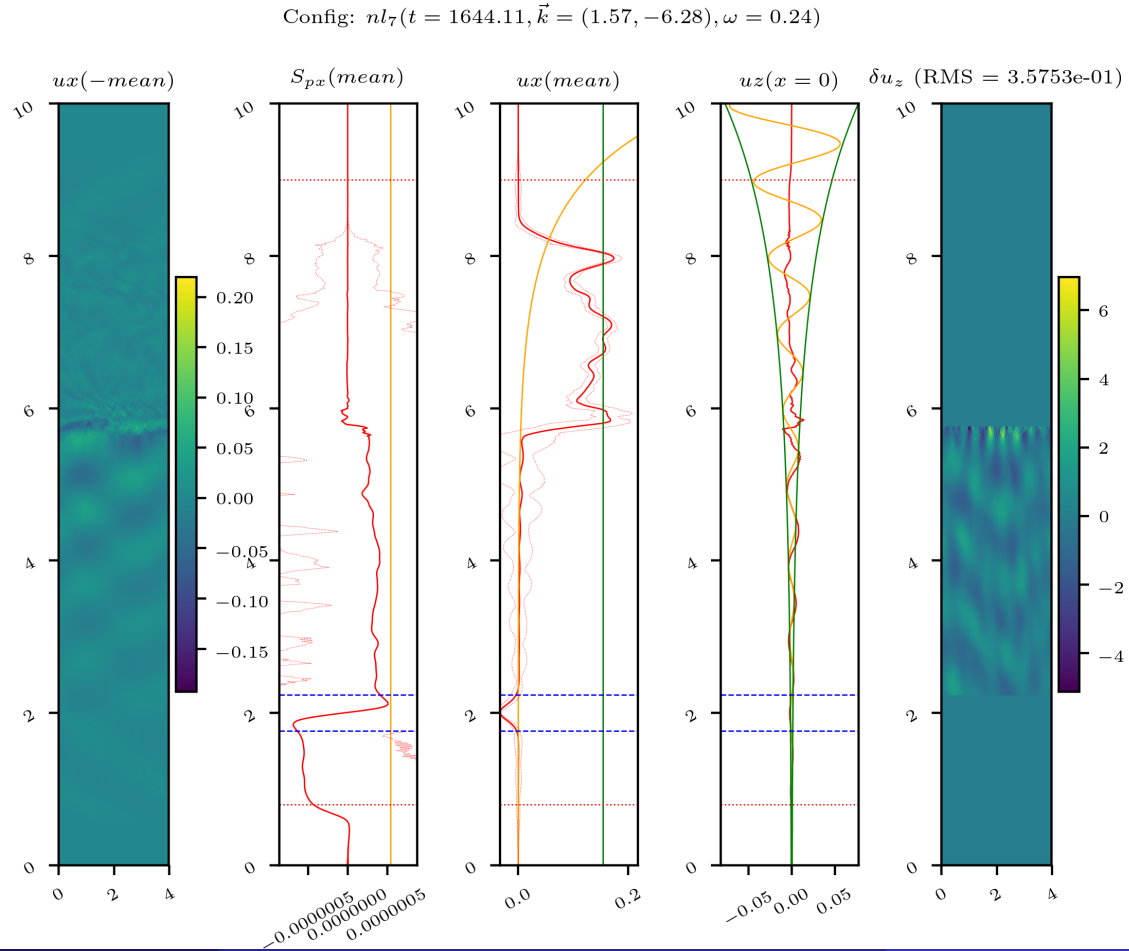
Reflection (nl6)

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathrm{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.



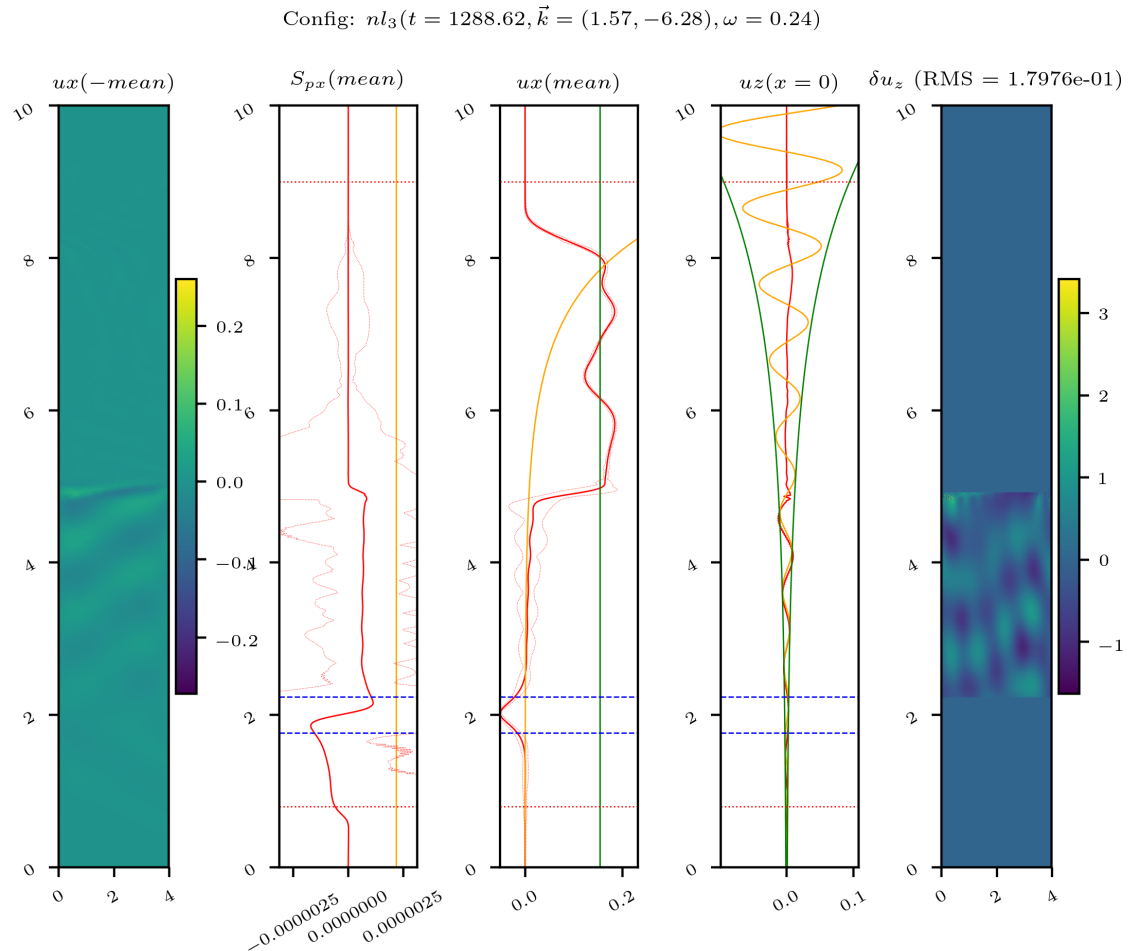
Reflection (nl7)

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathrm{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.



Reflection (nl3)

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathrm{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.



Reflection (nl5)

Get exact solution, up to viscous dissipation. Plot $\delta u_z = \frac{u_{z,sim} - u_{z,anal}}{|u_{z,anal}|}$, "fractional deviation" between driving zone and critical layer. Compute $\mathrm{RMS} = \sqrt{\langle \delta u_z^2 \rangle}$.