

representations of $e^{-\sqrt{(-i\omega/v)^2 + k^2} z}$

integer output, outfd, fetch

integer iw,nw,ik,nk, omhat, kxhat, kzhat, degree, tfilt, xfilt

real v, dt, dx, dz, xf, x0, tf, tau0, rho, bi, r0, eps, pi, omega, k, vk2

complex cz, cs, cikz, cexp, cmplx, csqrt, cp(1024)

outfd = output()

	call putch("esize","i", 8)	# complex numbers
nw = 256;	call putch("n1","i",nw)	# inner index is ω
nk = 64;	call putch("n2","i",nk)	# outer index is k_z
	call putch("n3","i", 1)	# one frame movie

if(fetch("v", "f", v) == 0)	v = 3.754	# rock vel
if(fetch("dt", "f", dt) == 0)	dt = .004	# Δt , sec
if(fetch("dx", "f", dx) == 0)	dx = .025	# Δx , km
if(fetch("dz", "f", dz) == 0)	dz = .004	# Δz , sec
if(fetch("xf", "f", xf) == 0)	xf = .25;	x0 = xf*nk*dx
if(fetch("tf", "f", tf) == 0)	tf = .5;	tau0=tf*nw*dt