

# Sea detuning sweep report (Ga sea / Al rare)

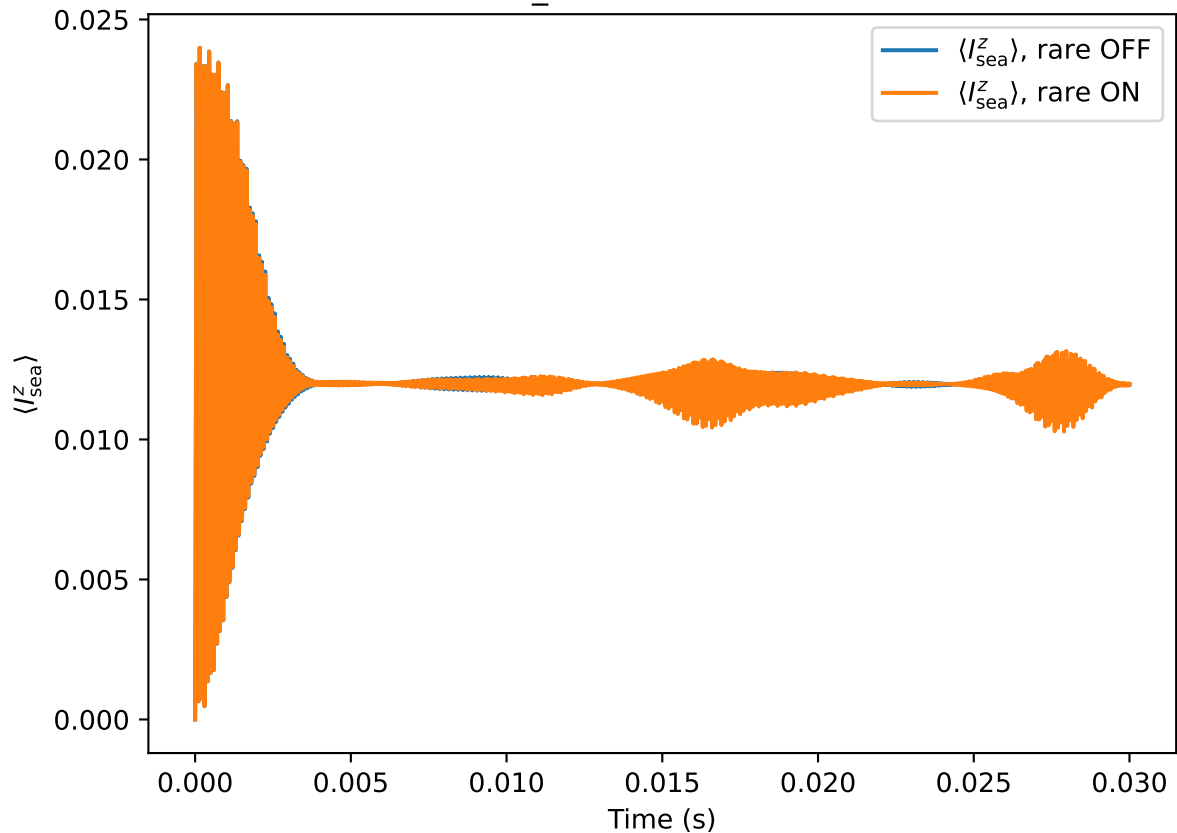
Global parameters (constant across sweep):

f_Az (sea Larmor)	= 34.062 MHz
f_Rz (rare Larmor)	= 33.308 MHz
f1A (sea Rabi)	= 0.020 kHz
f1R (rare Rabi)	= 0.010 kHz
gamma_sea	= 7.134e+07 rad·s <sup>-1</sup> ·T <sup>-1</sup>
gamma_rare	= 6.976e+07 rad·s <sup>-1</sup> ·T <sup>-1</sup>
B0_common	= 3.000 T
B1_sea	= 1.761e-06 T
B1_rare	= 9.007e-07 T
dipolar_scale_SI	= 1.055e-41
shell_scale	= 0.300 nm
t_final	= 3.000e-02 s
steps	= 2000
n_sea	= 12
phi_sea	= 0.000 rad
phi_rare	= 0.000 rad

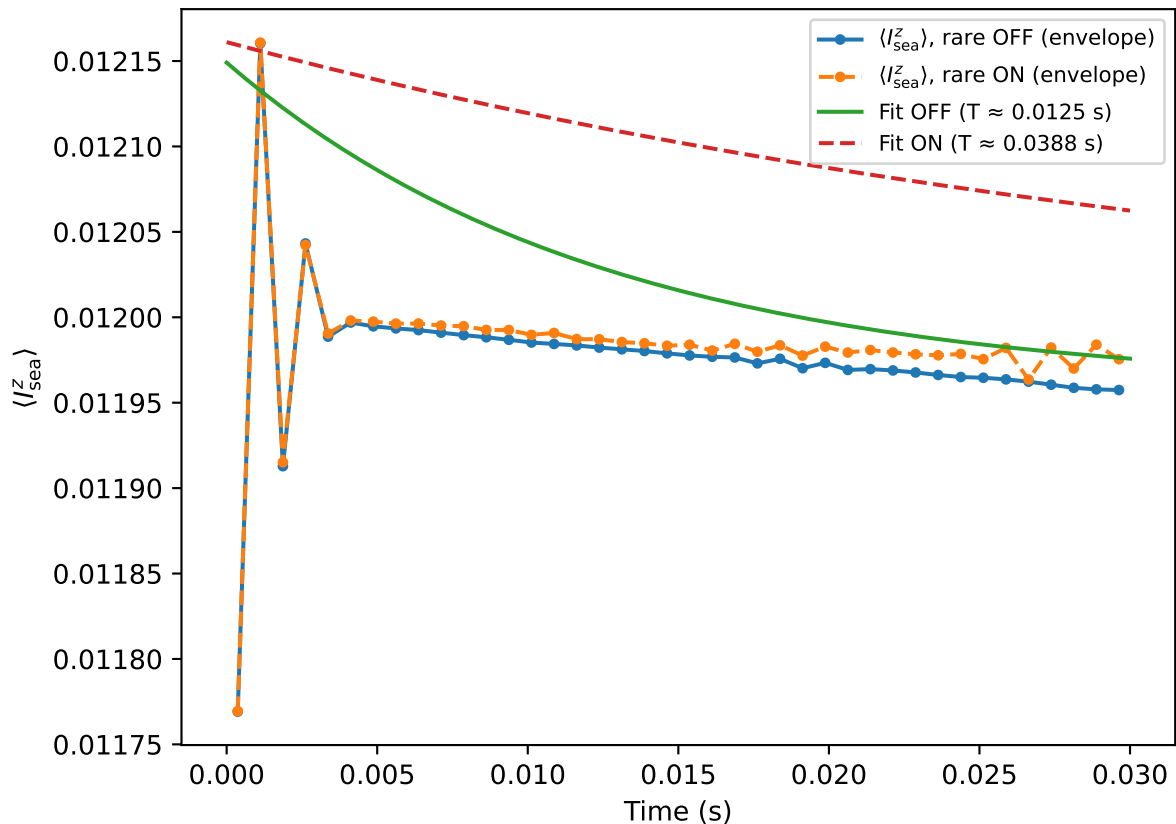
Sea detunings ( $\delta_A = f_{Az} - f_{rf,A}$ ) in Hz:

-10000.0, -5000.0, +0.0, +5000.0, +10000.0

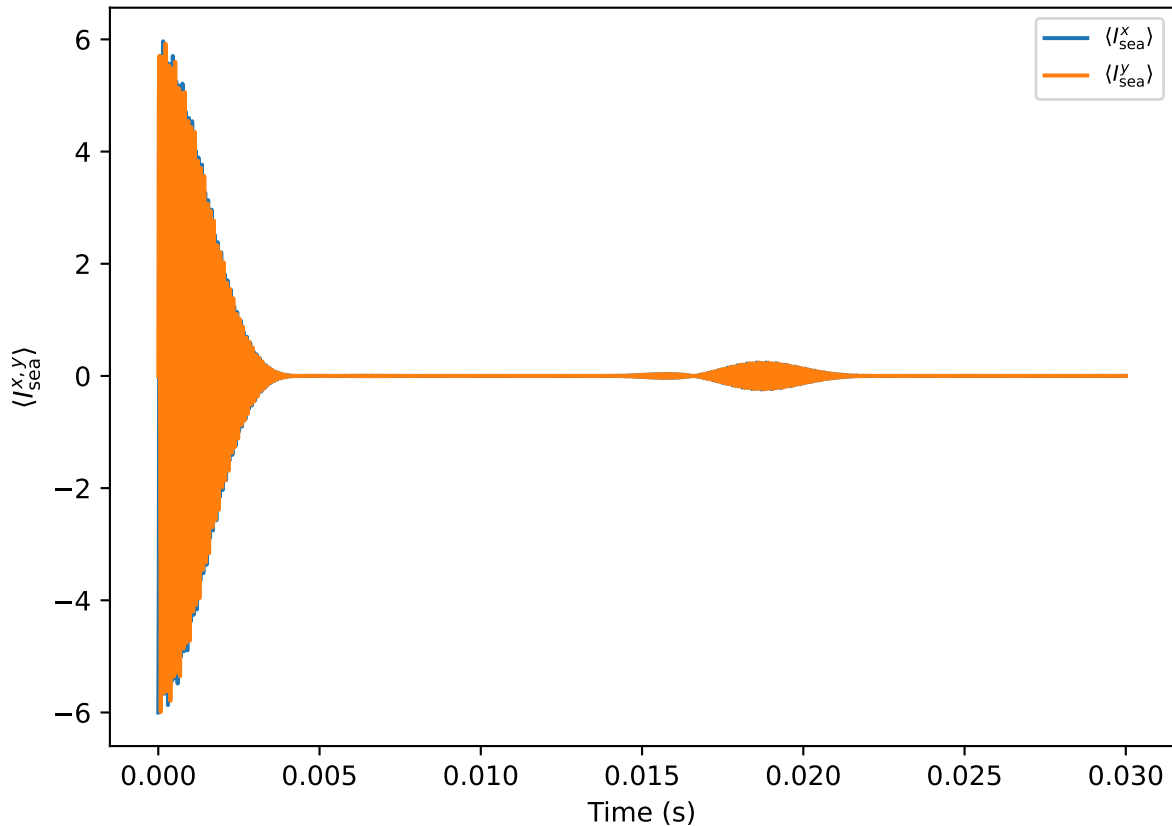
$\delta\_A = -10000.0$  Hz



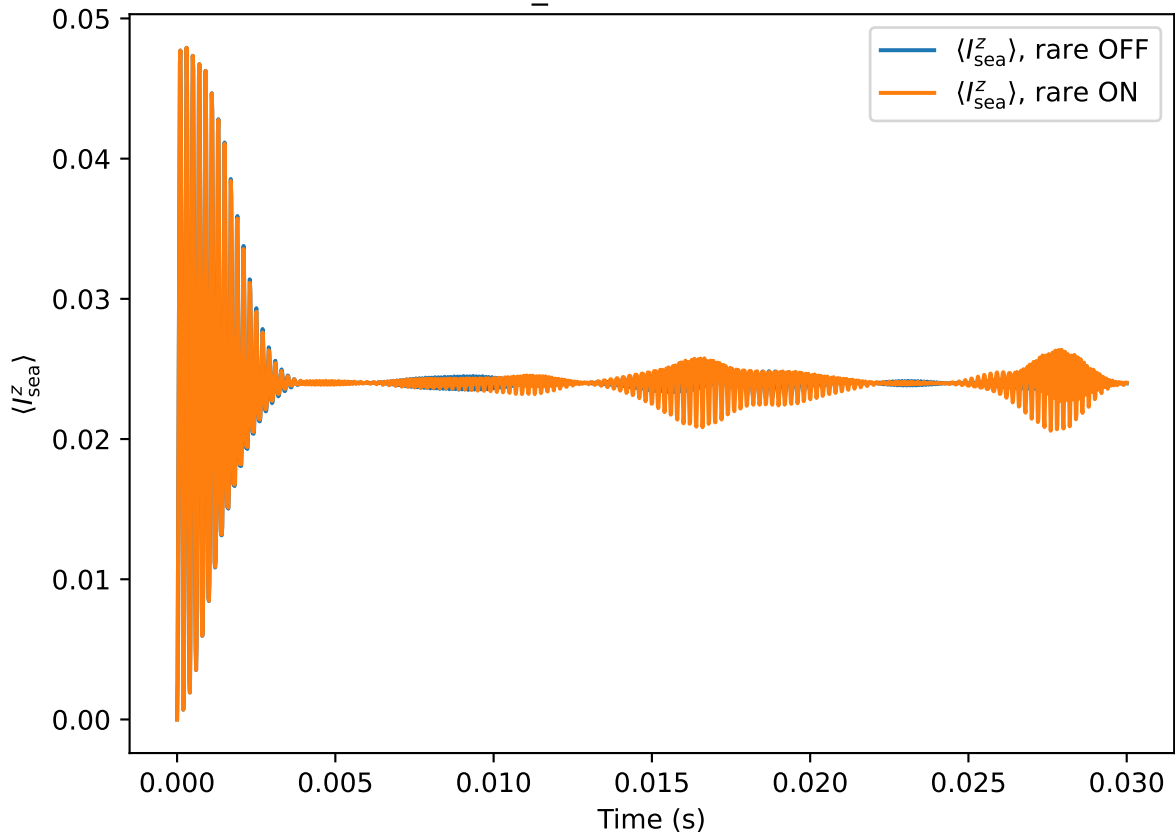
$\delta\_A = -10000.0$  Hz (pseudo  $T_1$  envelope)



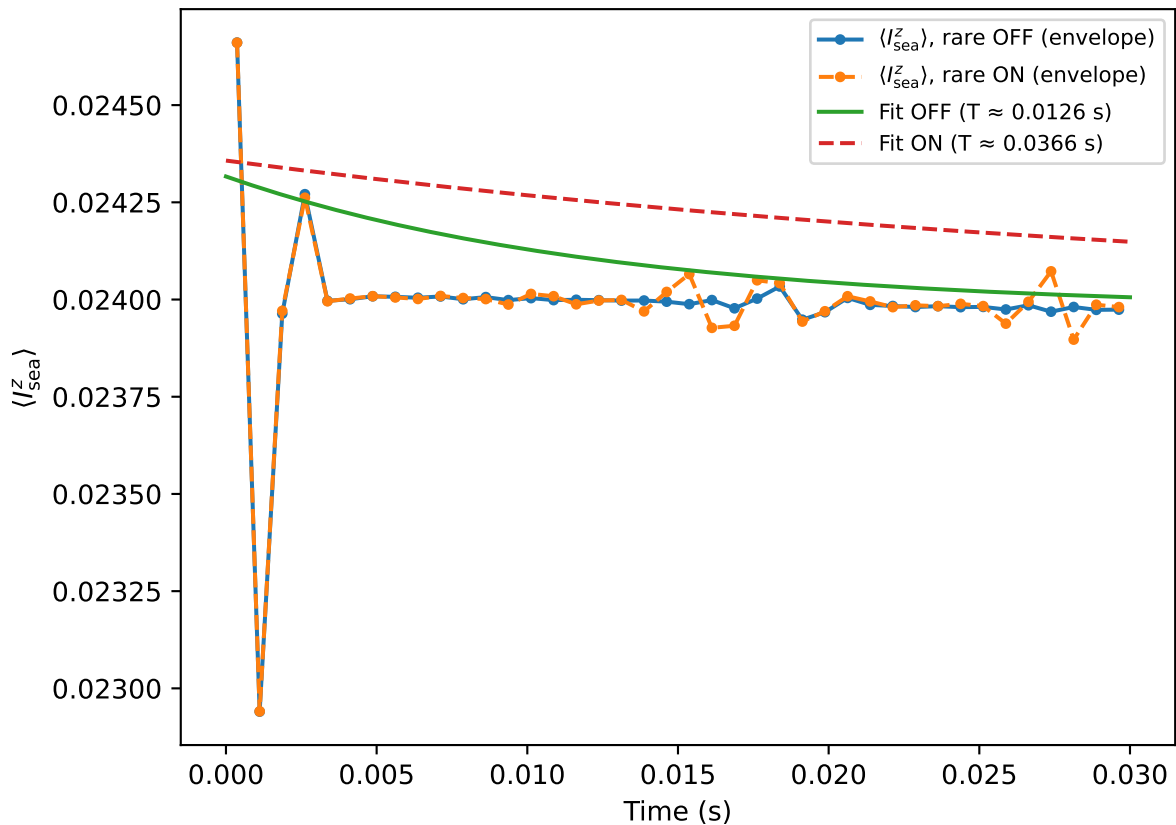
$\delta\_A = -10000.0$  Hz (rare drive OFF)



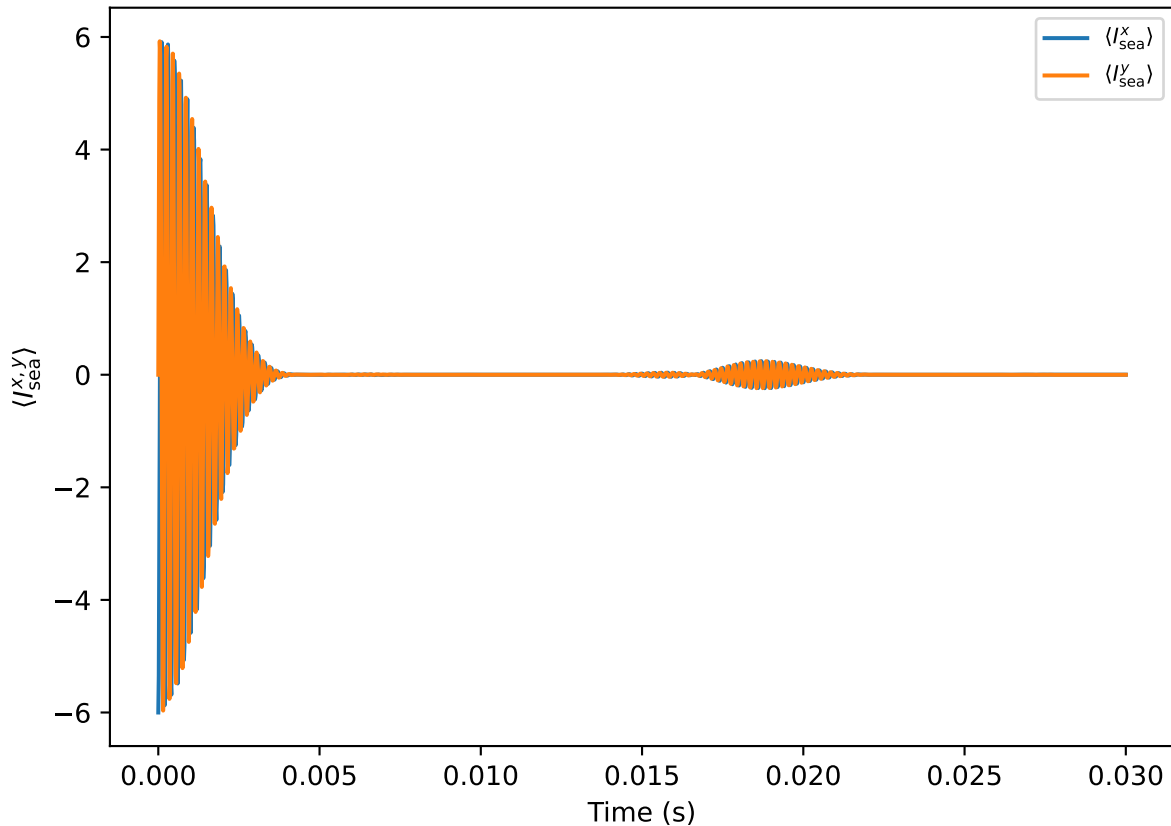
$\delta\_A = -5000.0$  Hz

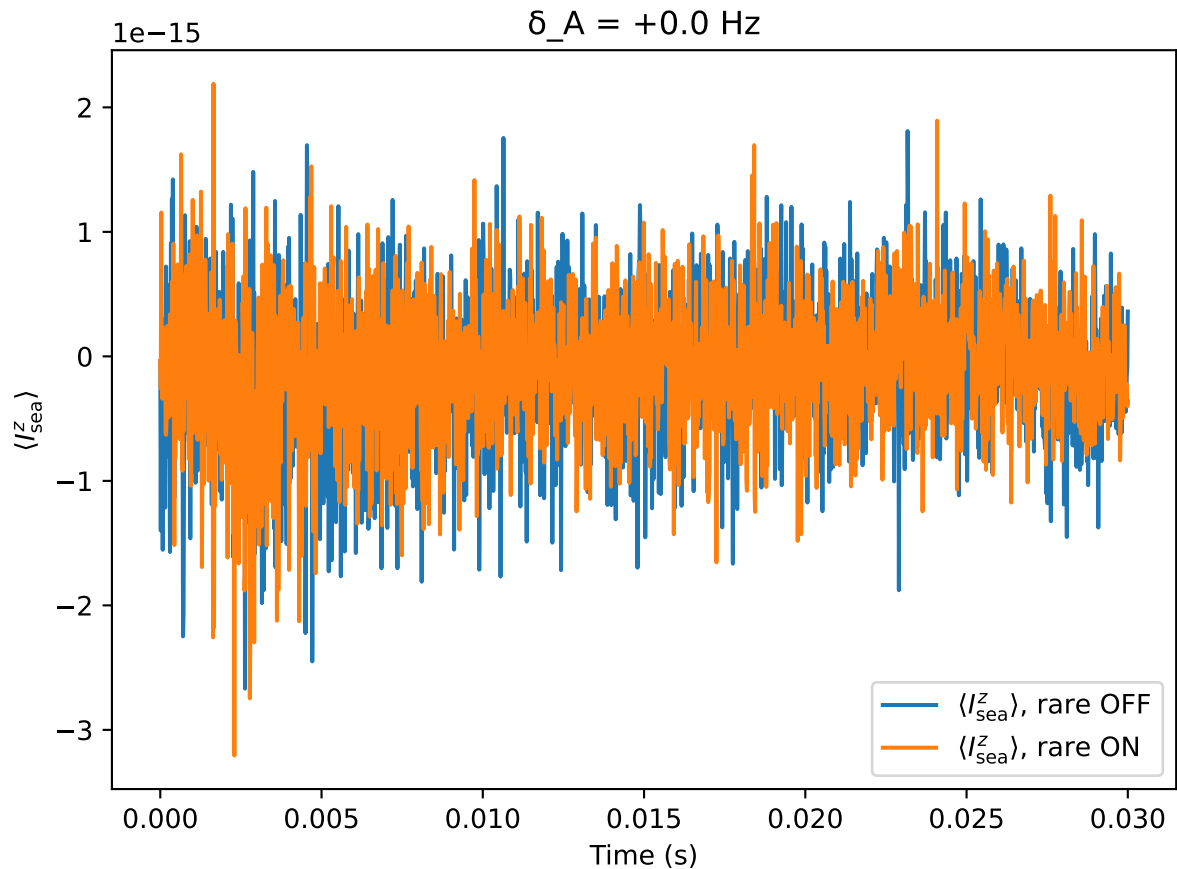


$\delta\_A = -5000.0$  Hz (pseudo  $T_1$  envelope)



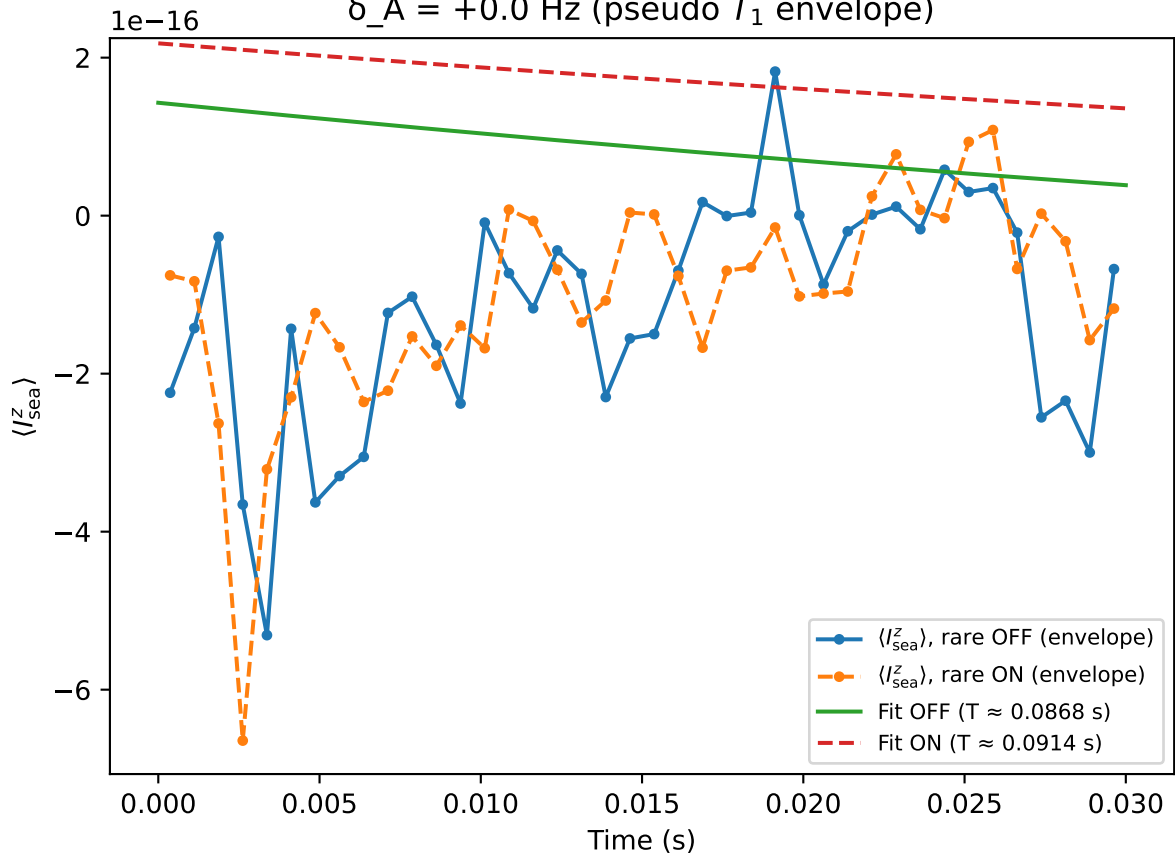
$\delta\_A = -5000.0$  Hz (rare drive OFF)



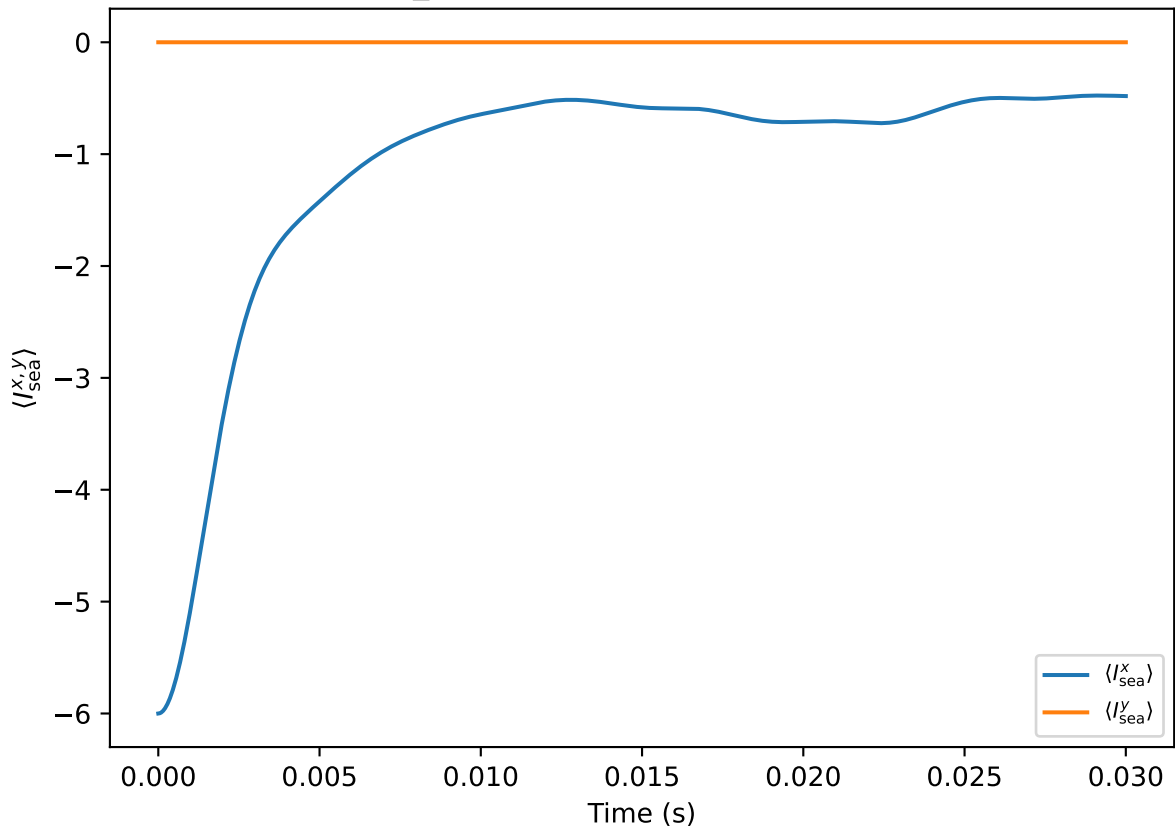




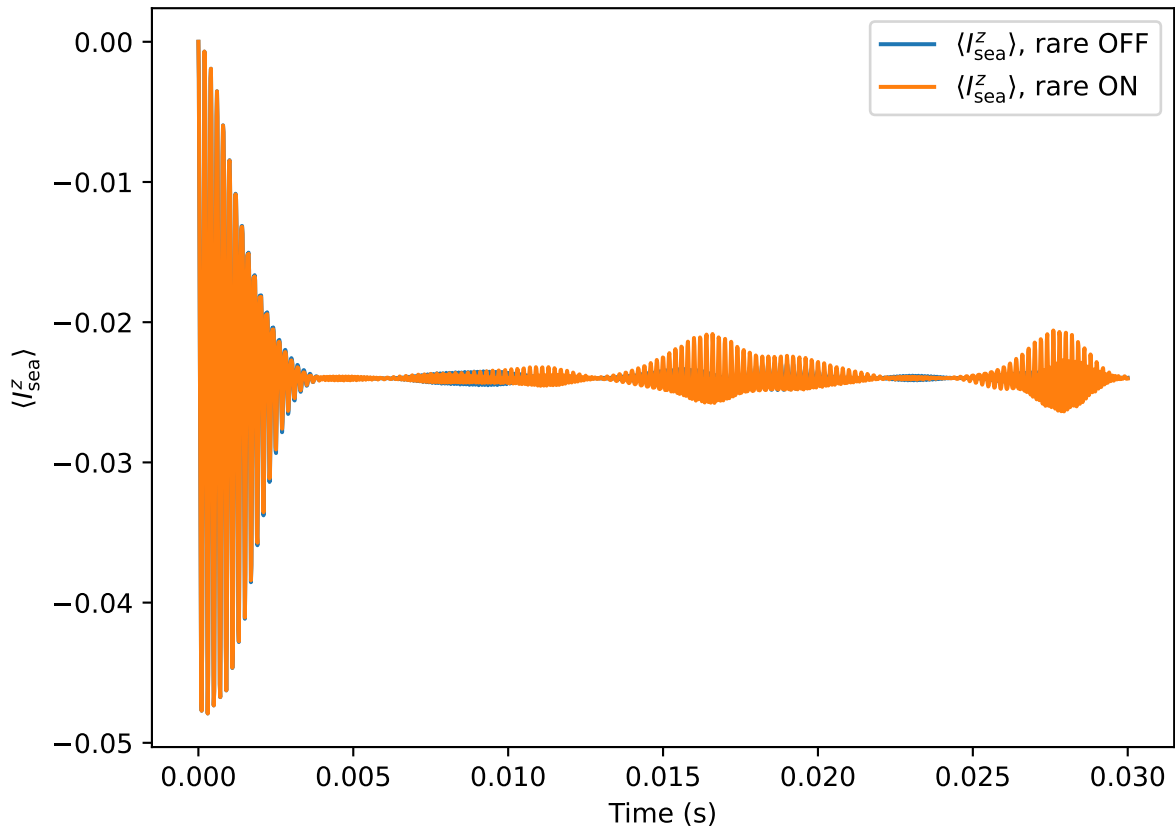
$\delta_A = +0.0$  Hz (pseudo  $T_1$  envelope)



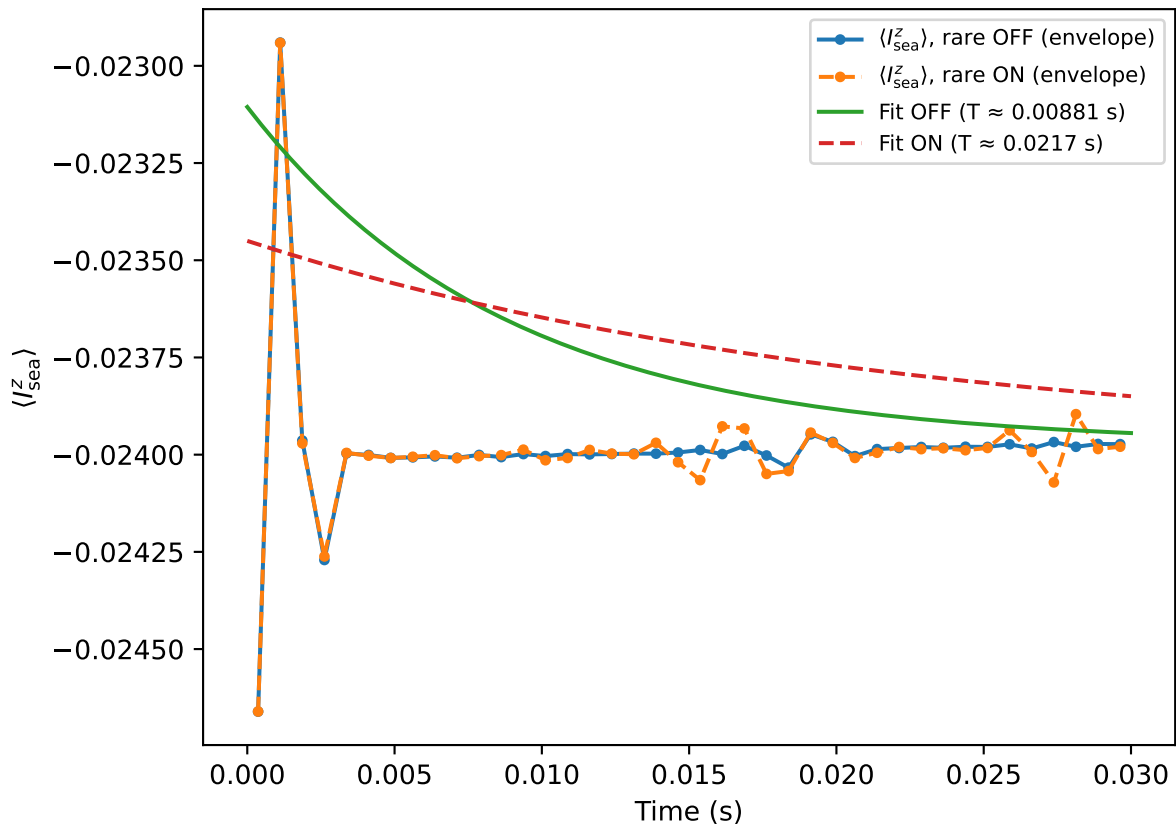
$\delta\_A = +0.0$  Hz (rare drive OFF)



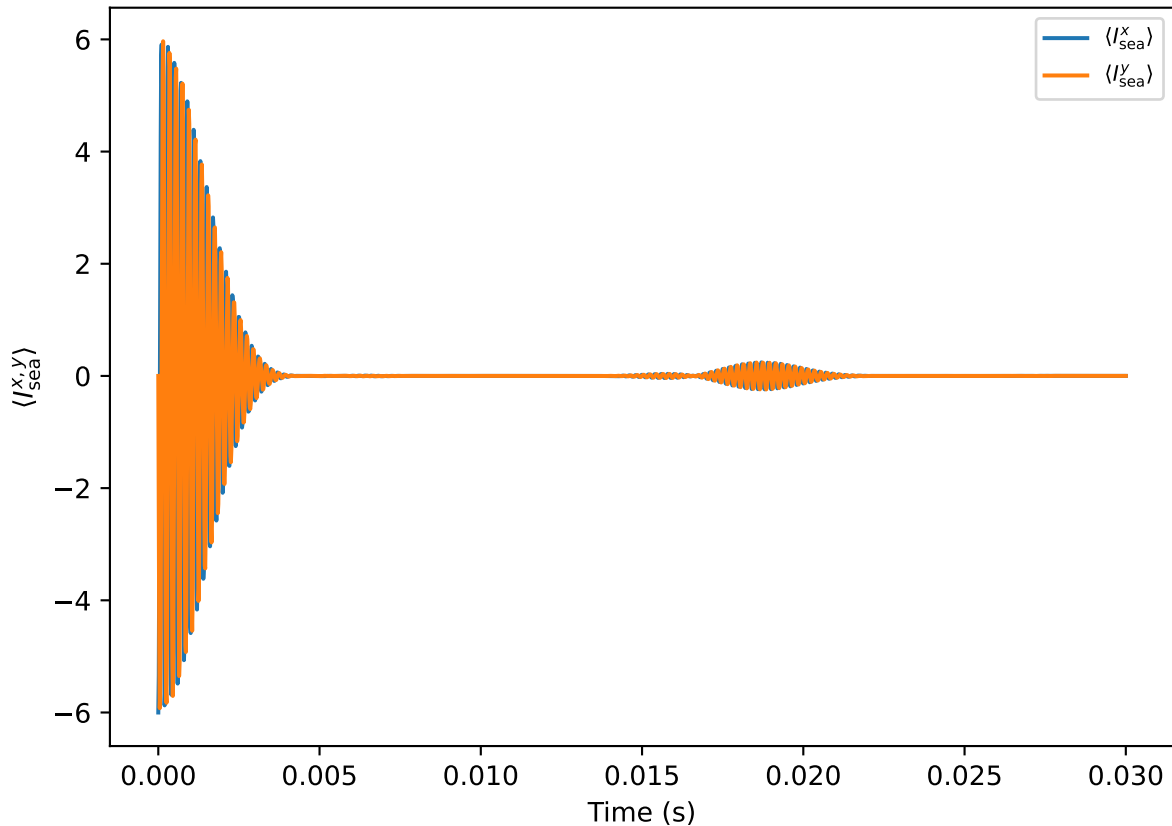
$\delta\_A = +5000.0$  Hz



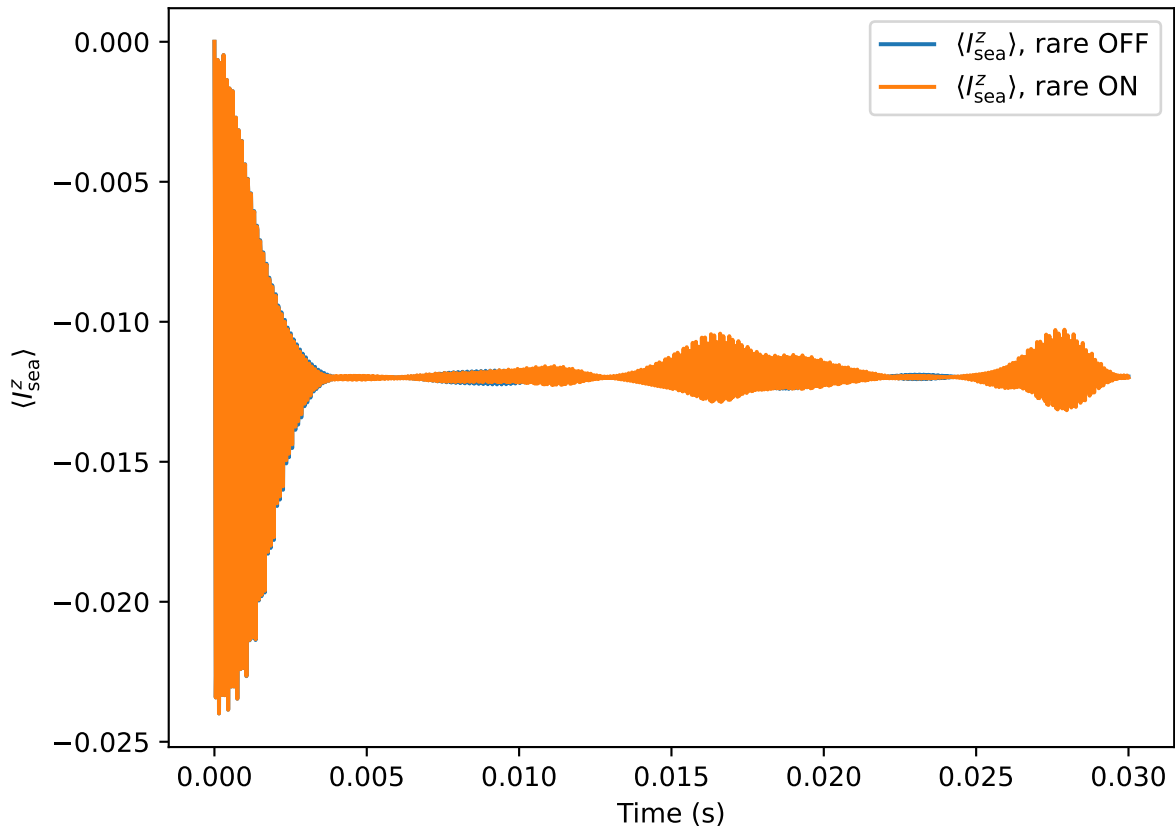
$\delta\_A = +5000.0$  Hz (pseudo  $T_1$  envelope)



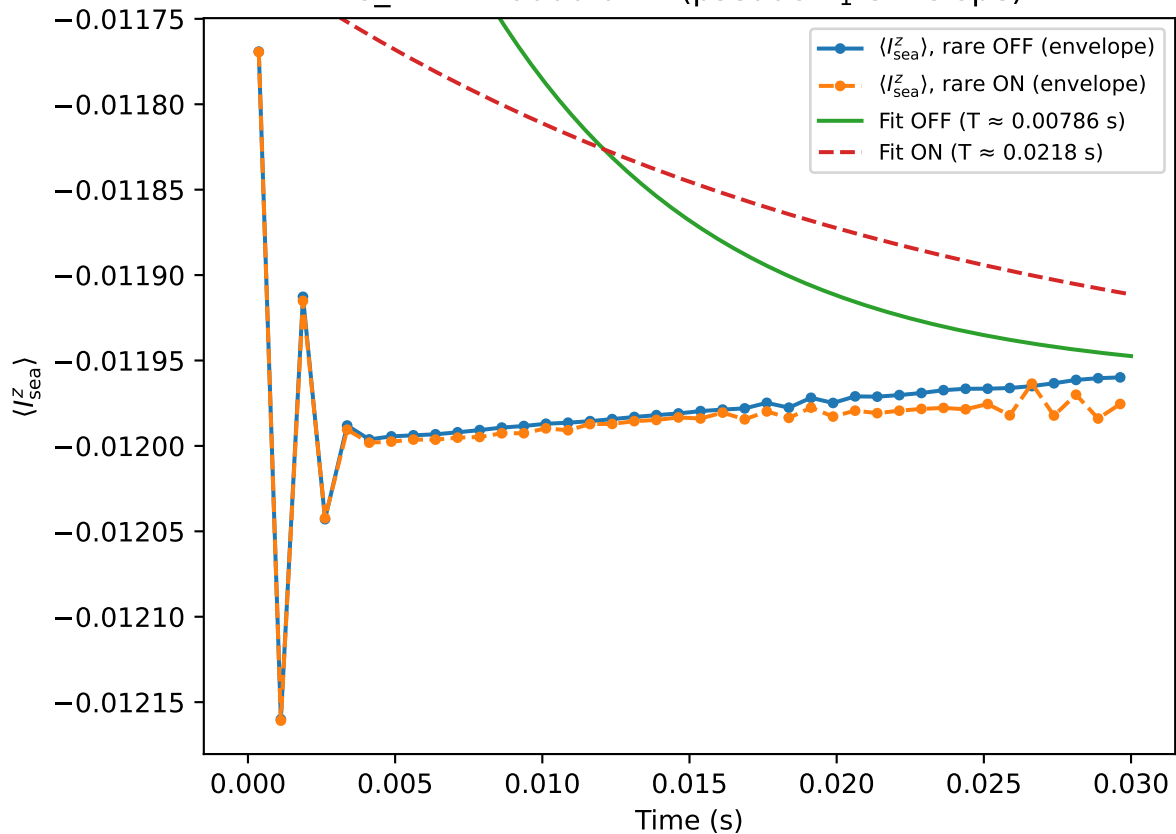
$\delta\_A = +5000.0$  Hz (rare drive OFF)



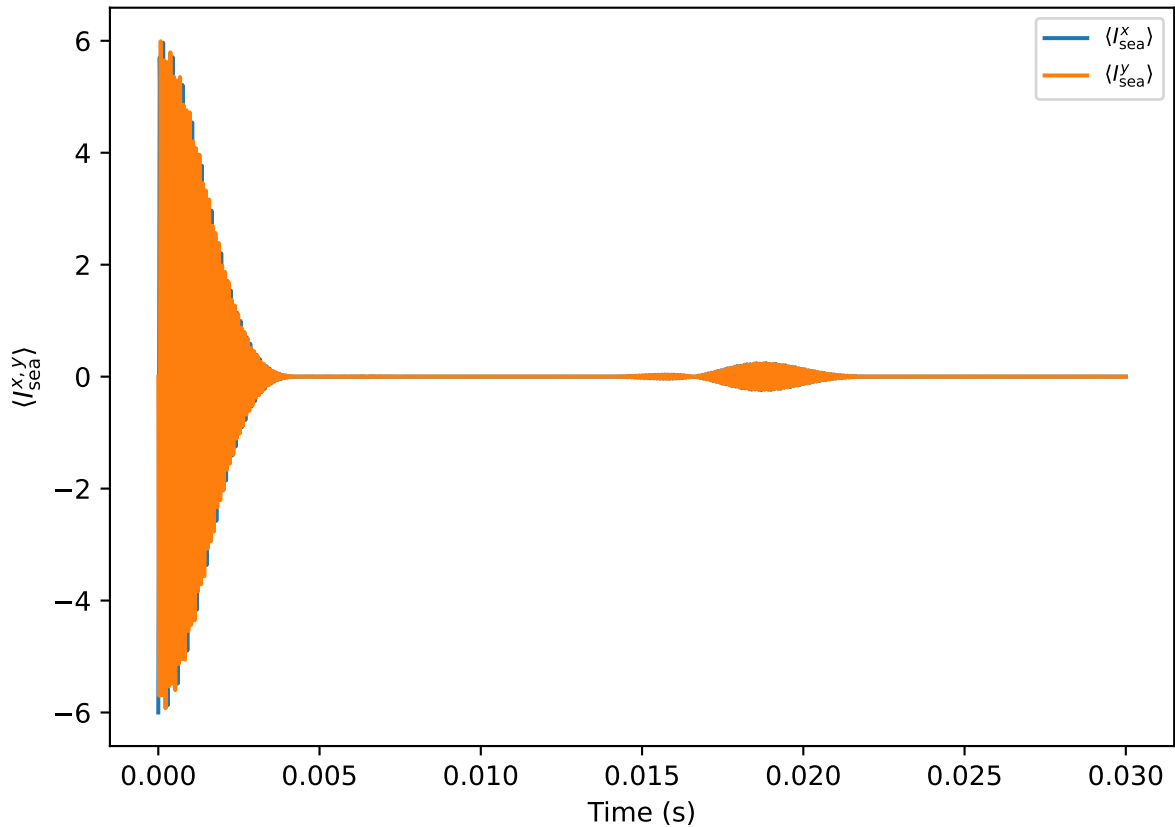
$\delta\_A = +10000.0$  Hz



$\delta_A = +10000.0$  Hz (pseudo  $T_1$  envelope)



$\delta\_A = +10000.0$  Hz (rare drive OFF)





T-like decay fits from  $\langle I^z_{\text{sea}} \rangle$  traces

delta_Hz	T_Iz_sea_off	T_Iz_sea_on
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-10000.0	0.0125	0.0388
-5000.0	0.0126	0.0366
+0.0	0.0868	0.0914
+5000.0	0.00881	0.0217
+10000.0	0.00786	0.0218