

Sea detuning sweep report (Ga sea / Al rare)

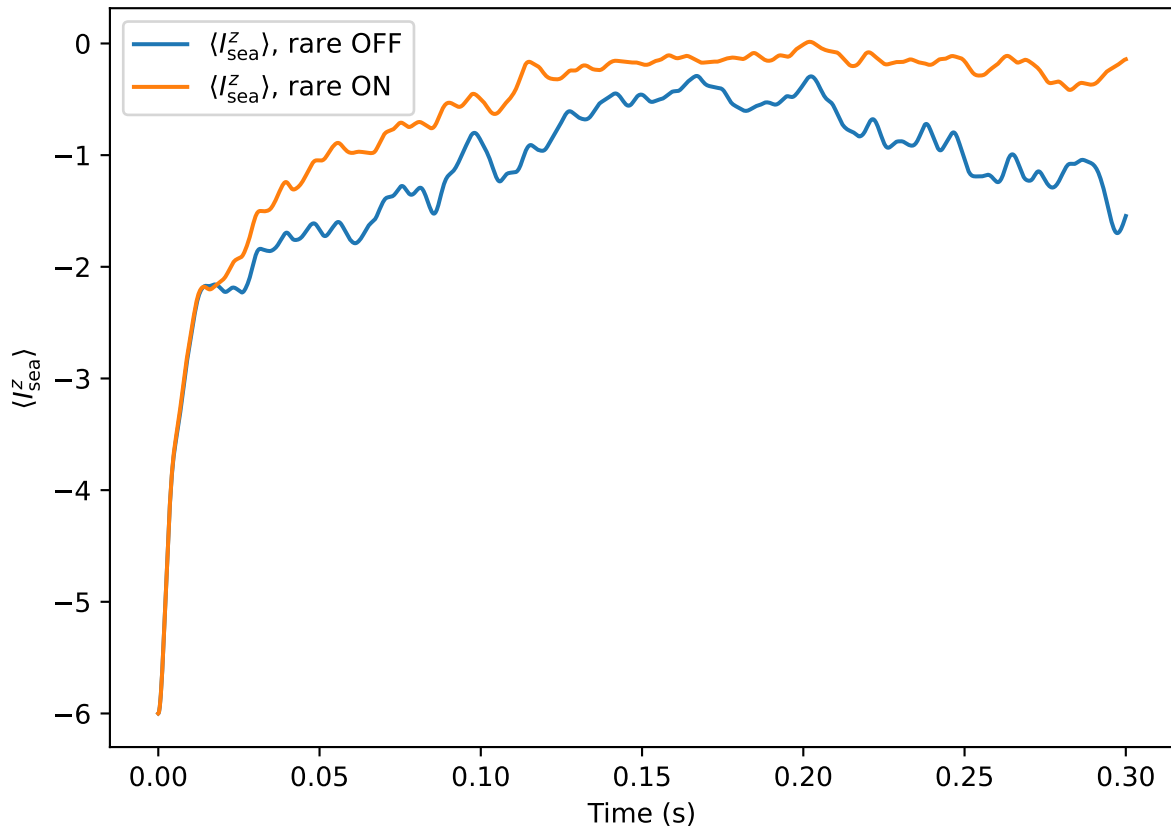
Global parameters (constant across sweep):

| | |
|--------------------|--|
| 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 ⁻¹ ·T ⁻¹ |
| gamma_rare | = 6.976e+07 rad·s ⁻¹ ·T ⁻¹ |
| 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-01 s |
| steps | = 20000 |
| n_sea | = 12 |
| phi_sea | = 1.571 rad |
| phi_rare | = 1.571 rad |

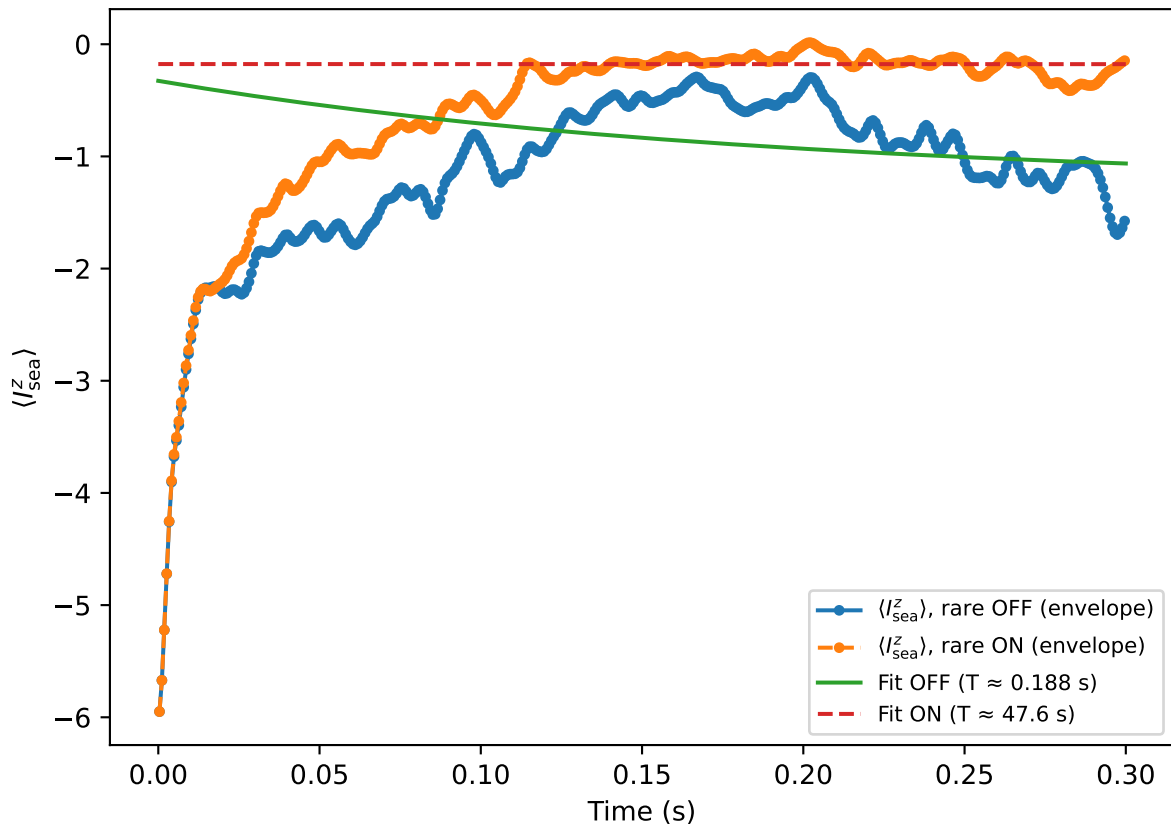
Sea detunings ($\delta_A = f_{Az} - f_{rf,A}$) in Hz:

+0.0, +125.0, +250.0, +375.0, +500.0, +625.0, +750.0, +875.0, +1000.0

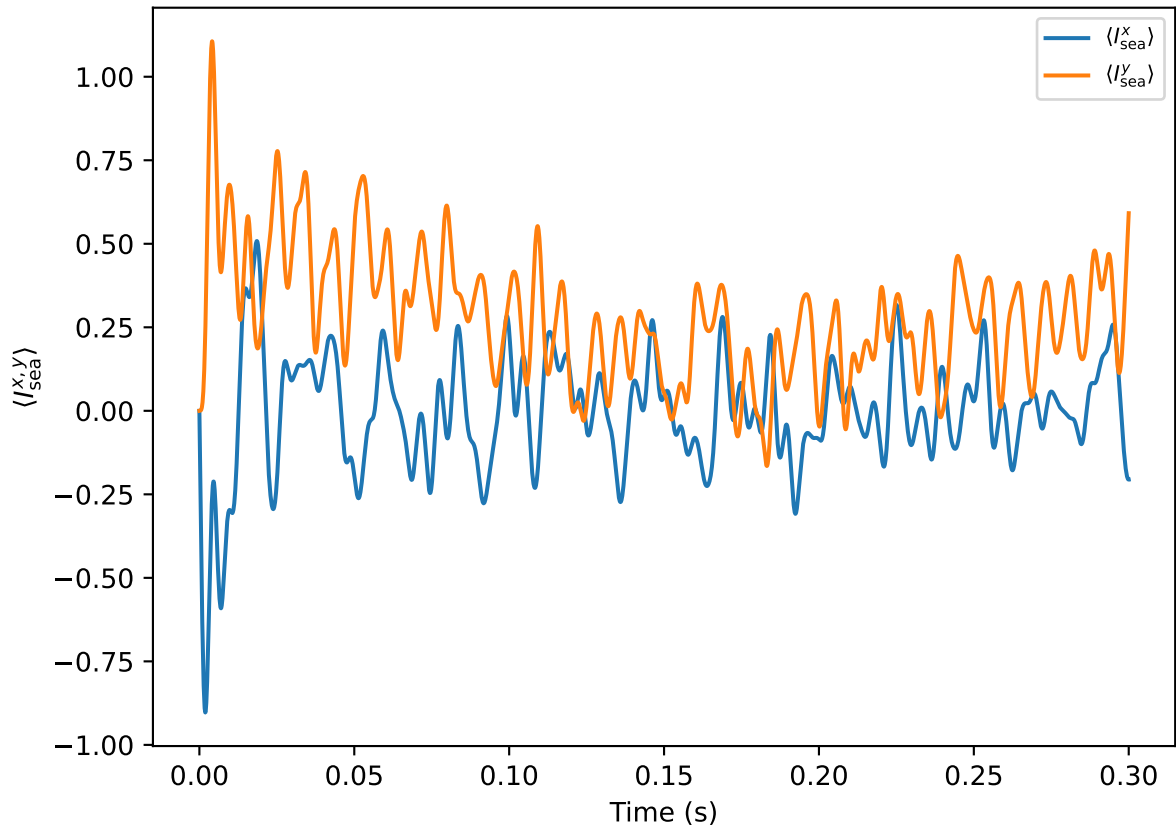
$\delta_A = +0.0$ Hz



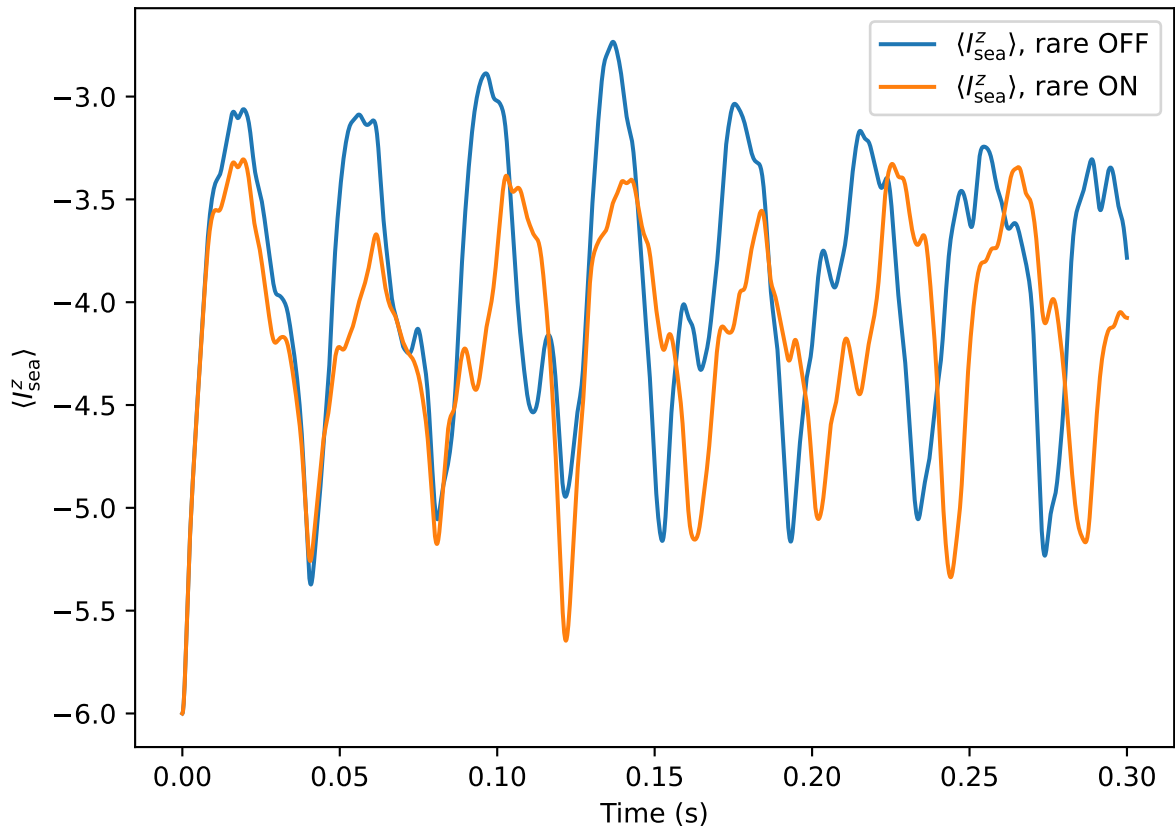
$\delta_A = +0.0$ Hz (pseudo T_1 envelope)



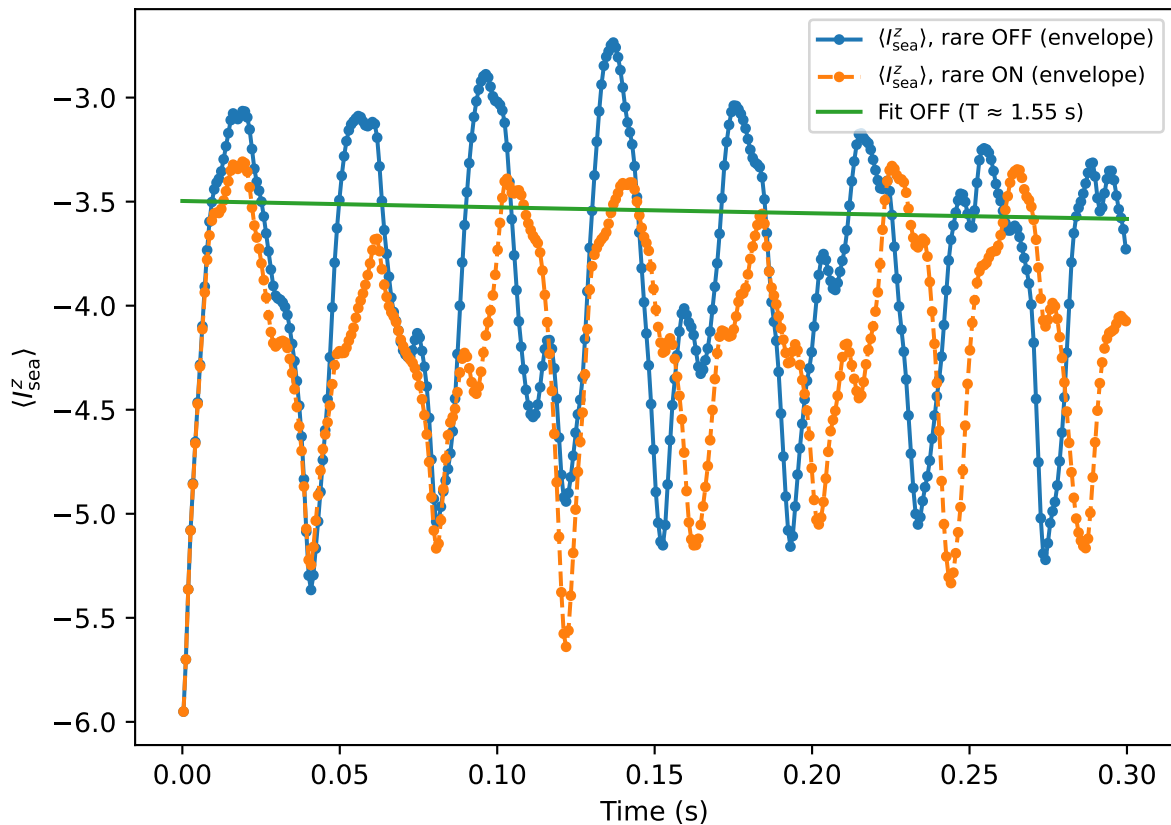
$\delta_A = +0.0$ Hz (rare drive OFF)



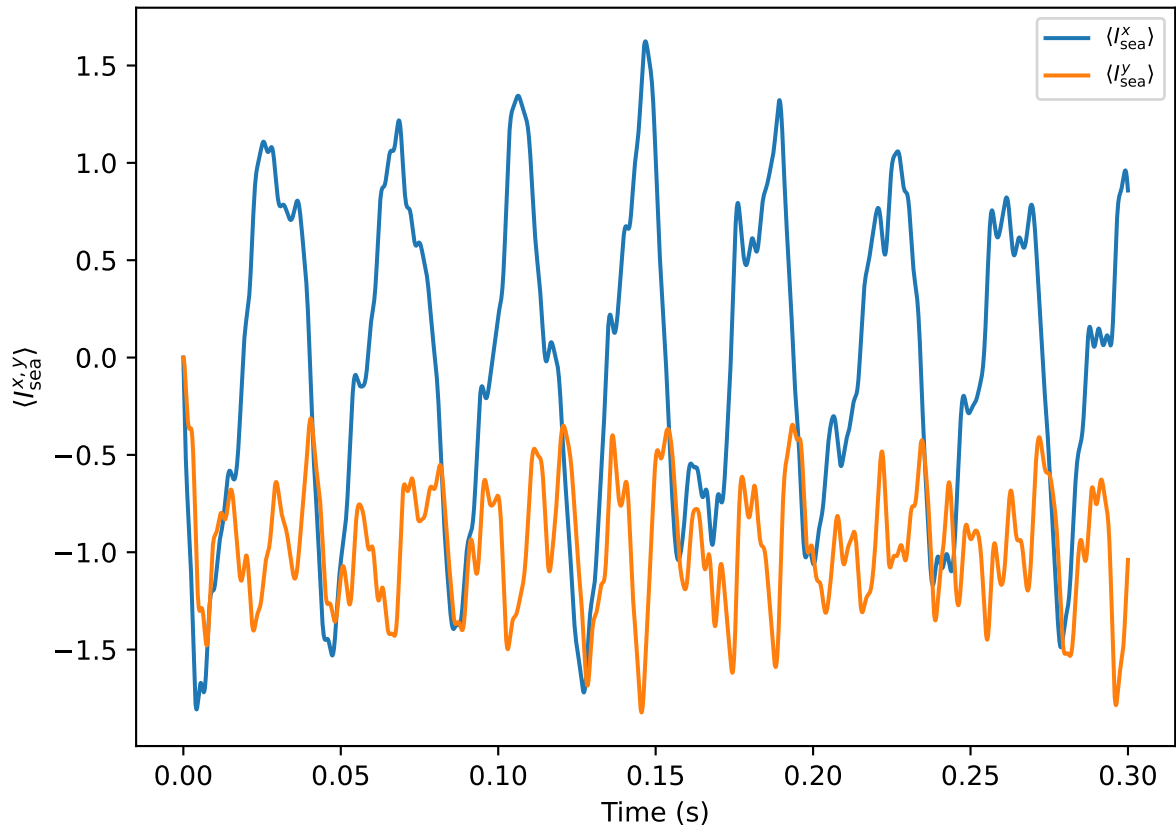
$\delta_A = +125.0$ Hz



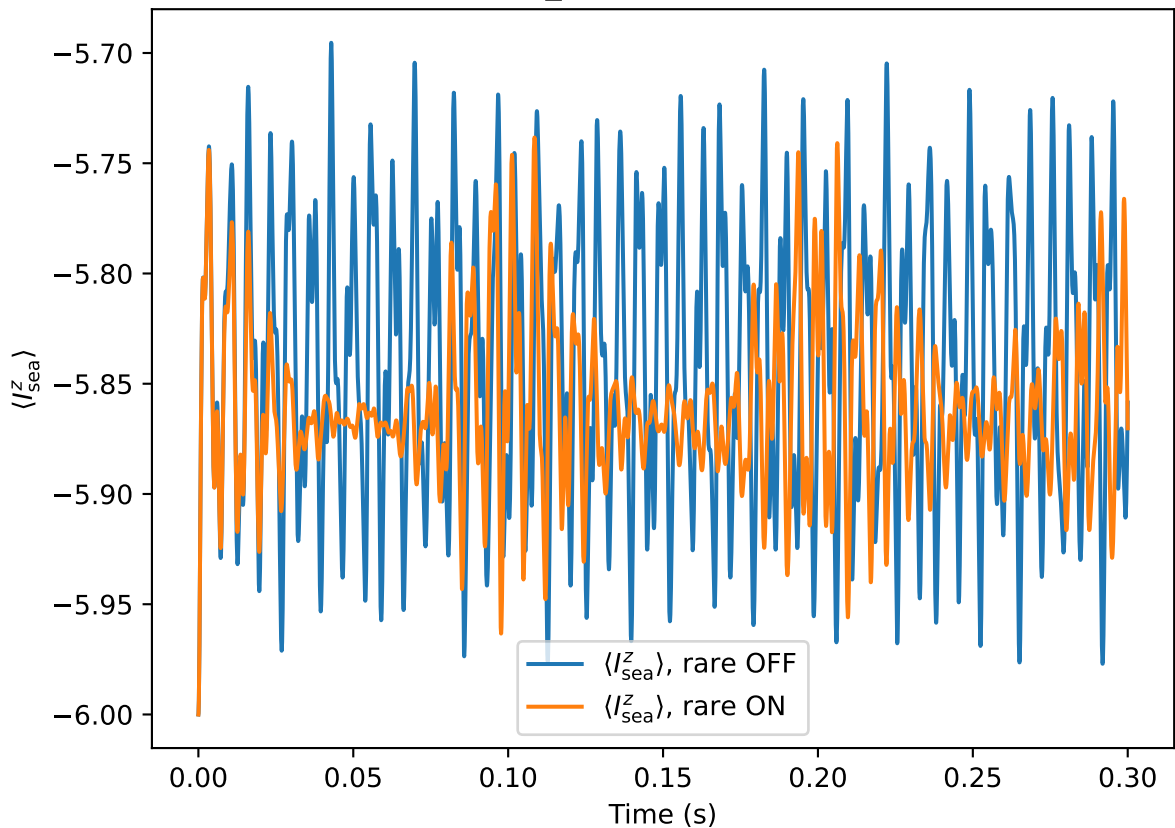
$\delta_A = +125.0$ Hz (pseudo T_1 envelope)



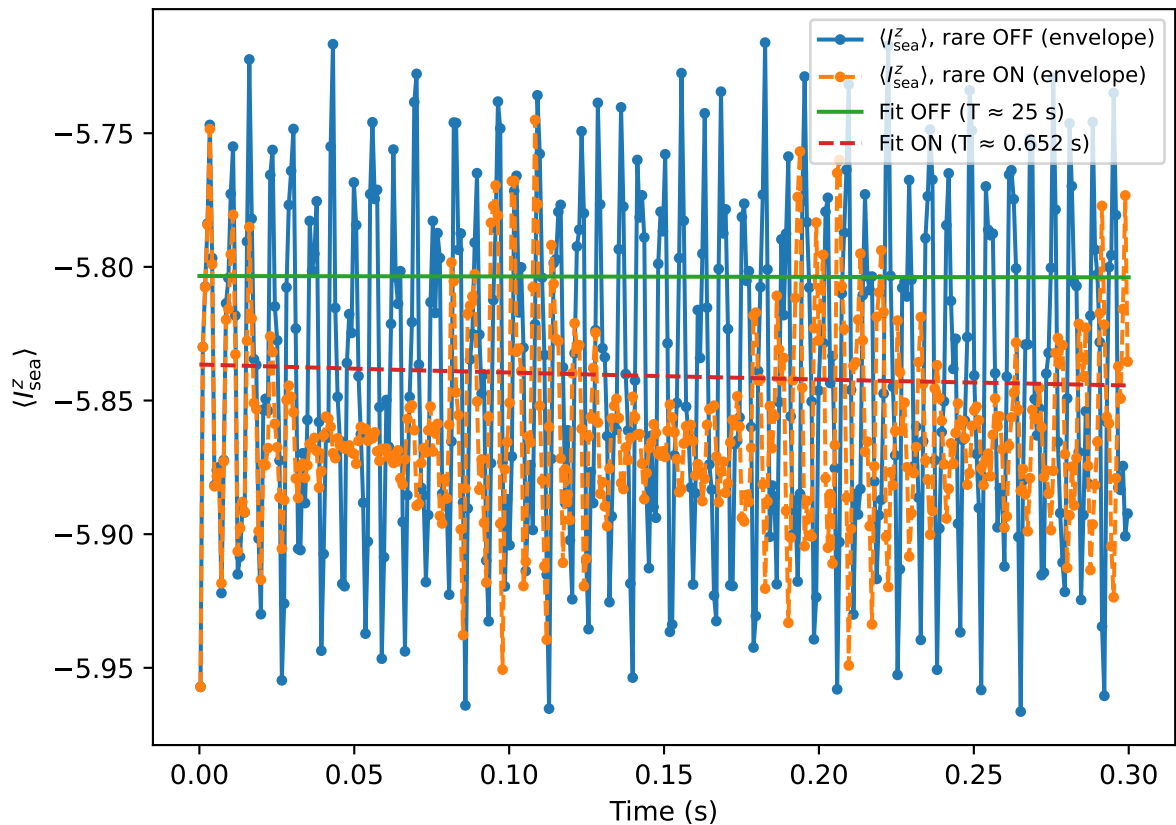
$\delta_A = +125.0$ Hz (rare drive OFF)



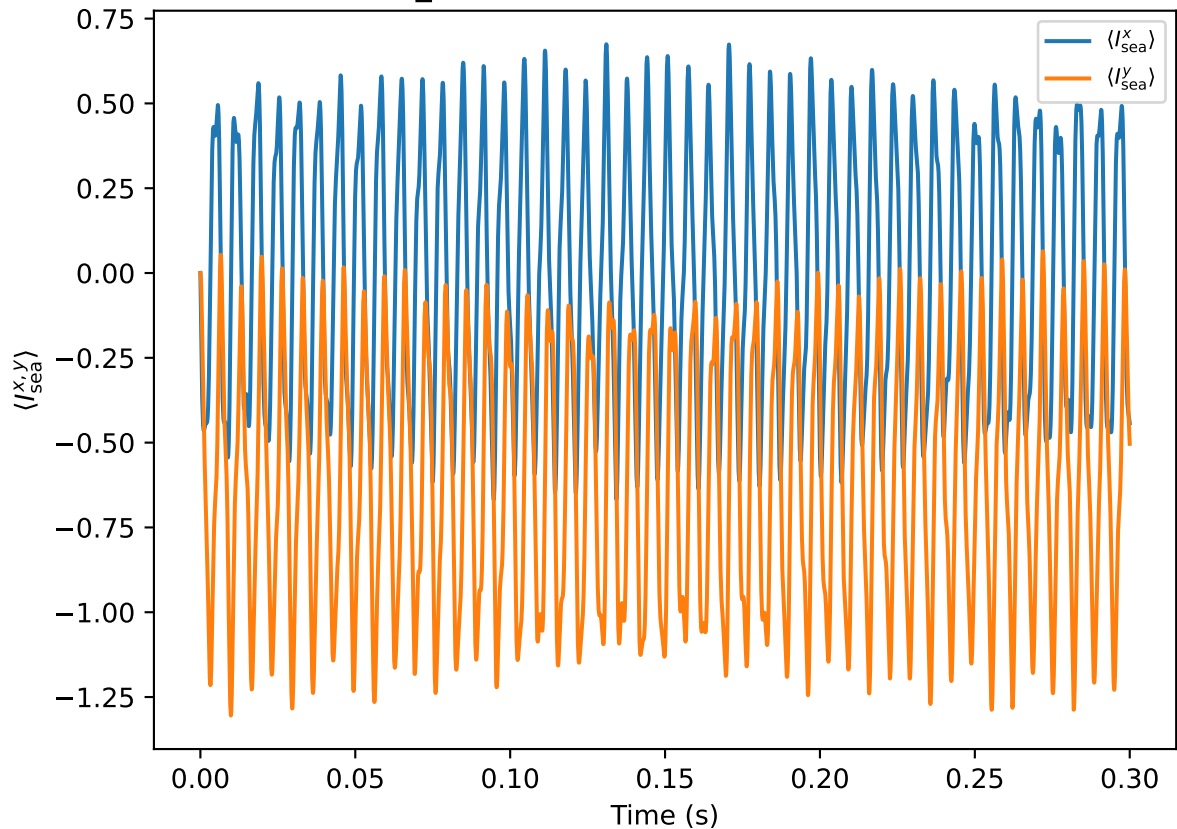
$\delta_A = +250.0$ Hz



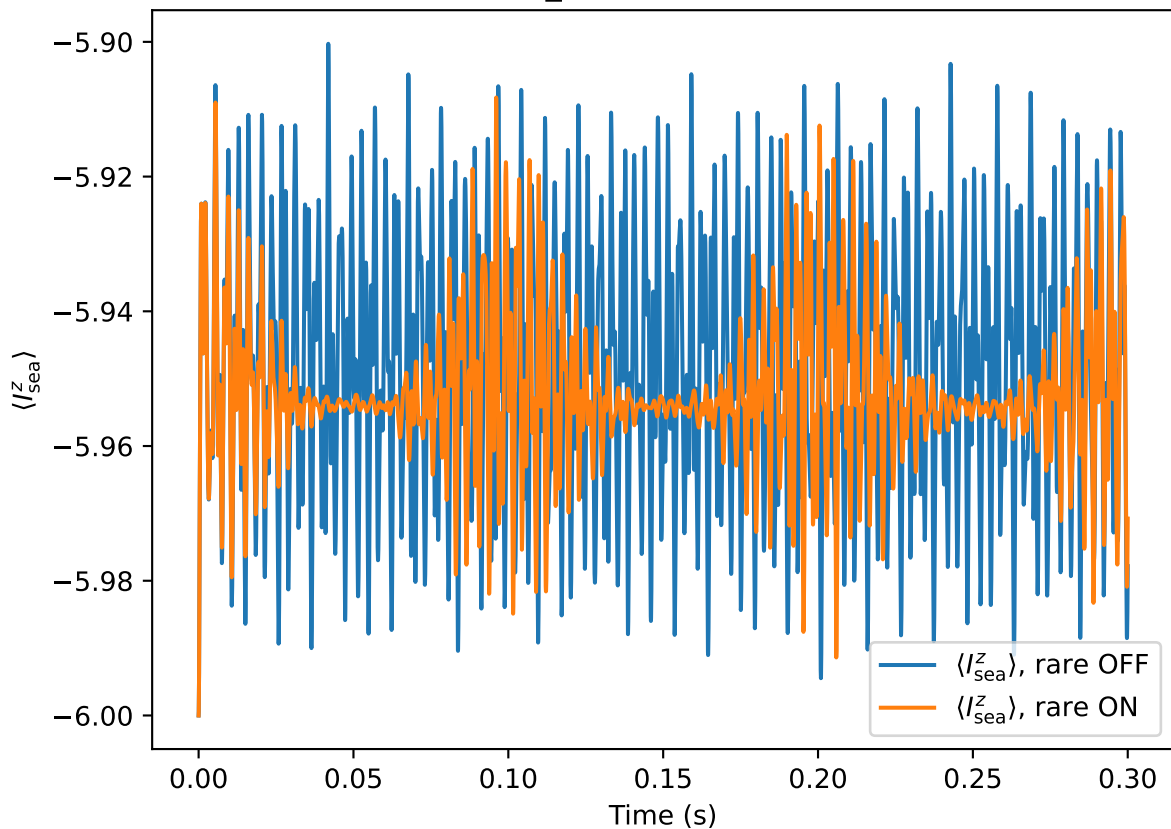
$\delta_A = +250.0$ Hz (pseudo T_1 envelope)



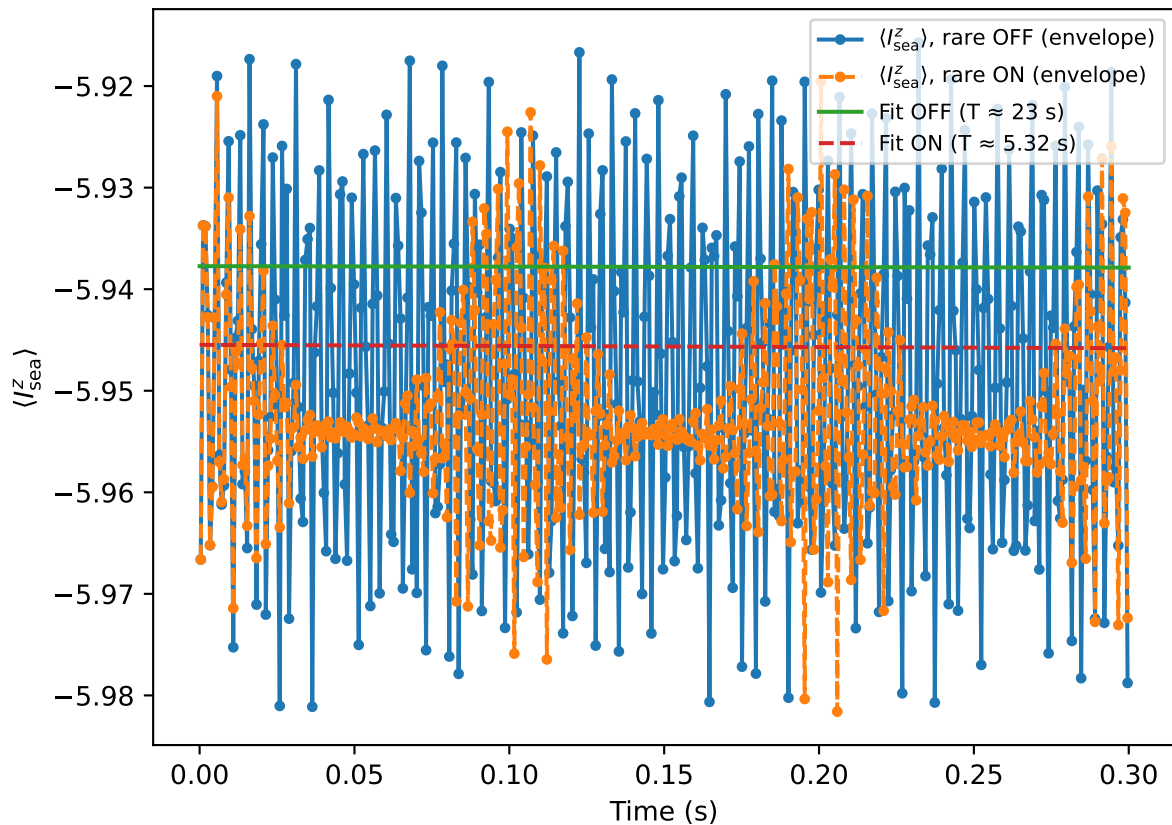
$\delta_A = +250.0$ Hz (rare drive OFF)



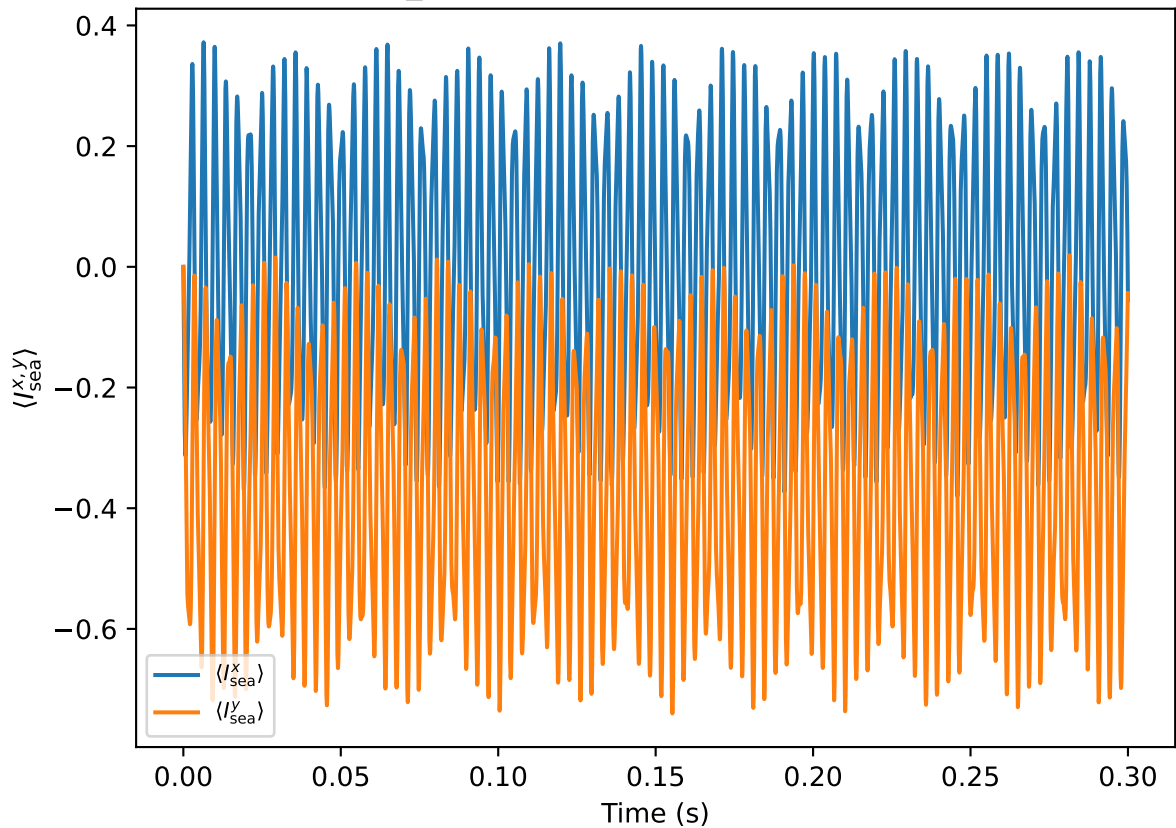
$\delta_A = +375.0$ Hz



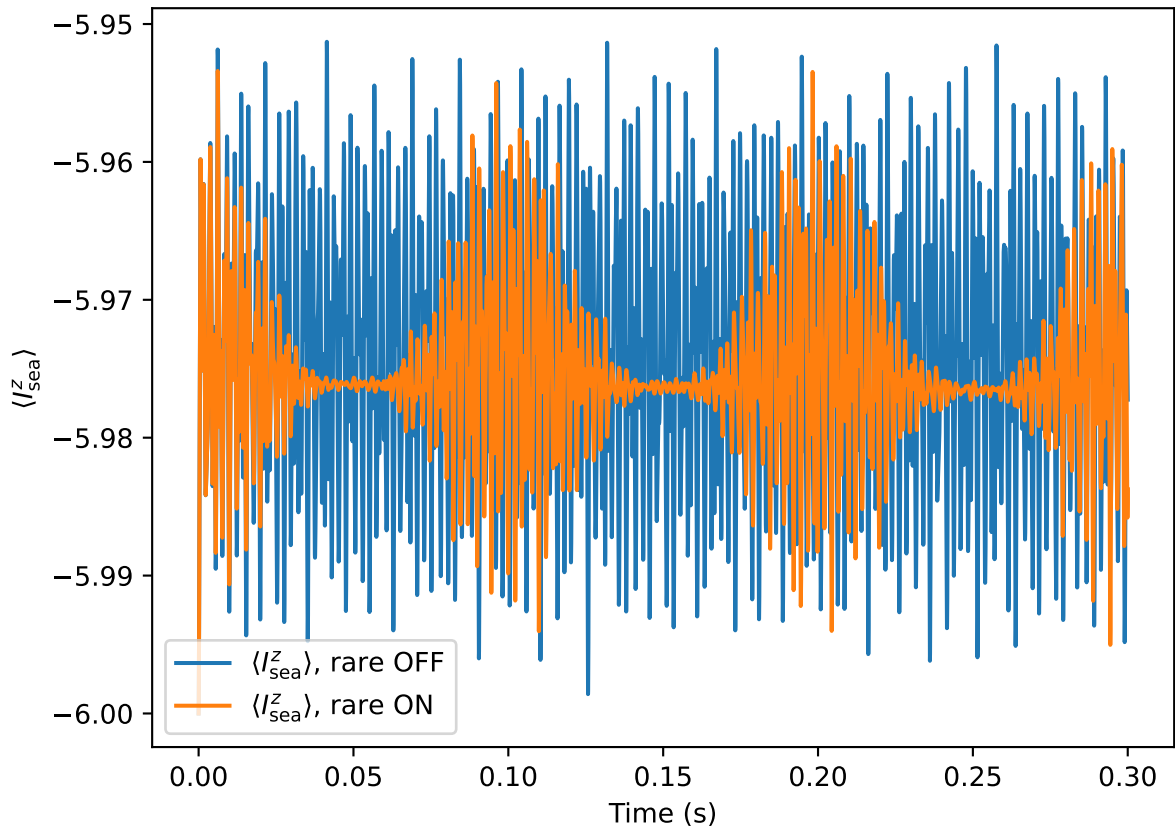
$\delta_A = +375.0$ Hz (pseudo T_1 envelope)



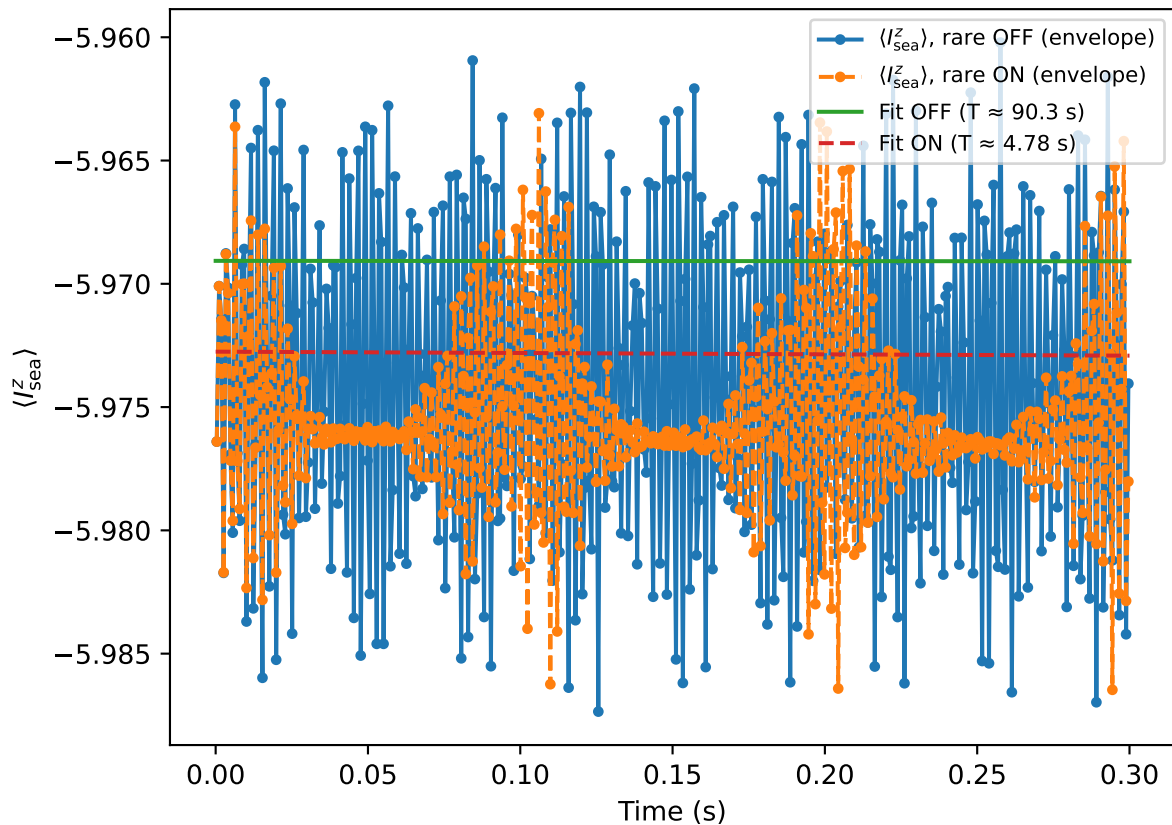
$\delta_A = +375.0$ Hz (rare drive OFF)



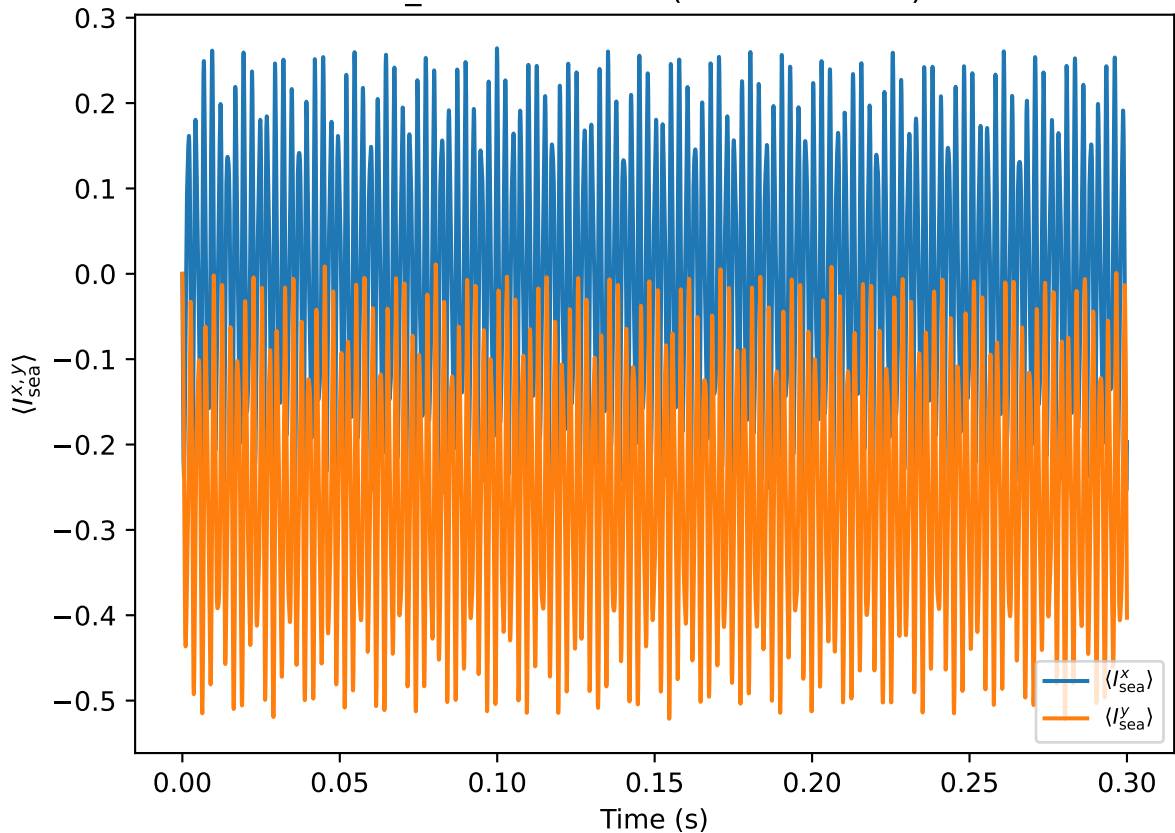
$\delta_A = +500.0$ Hz



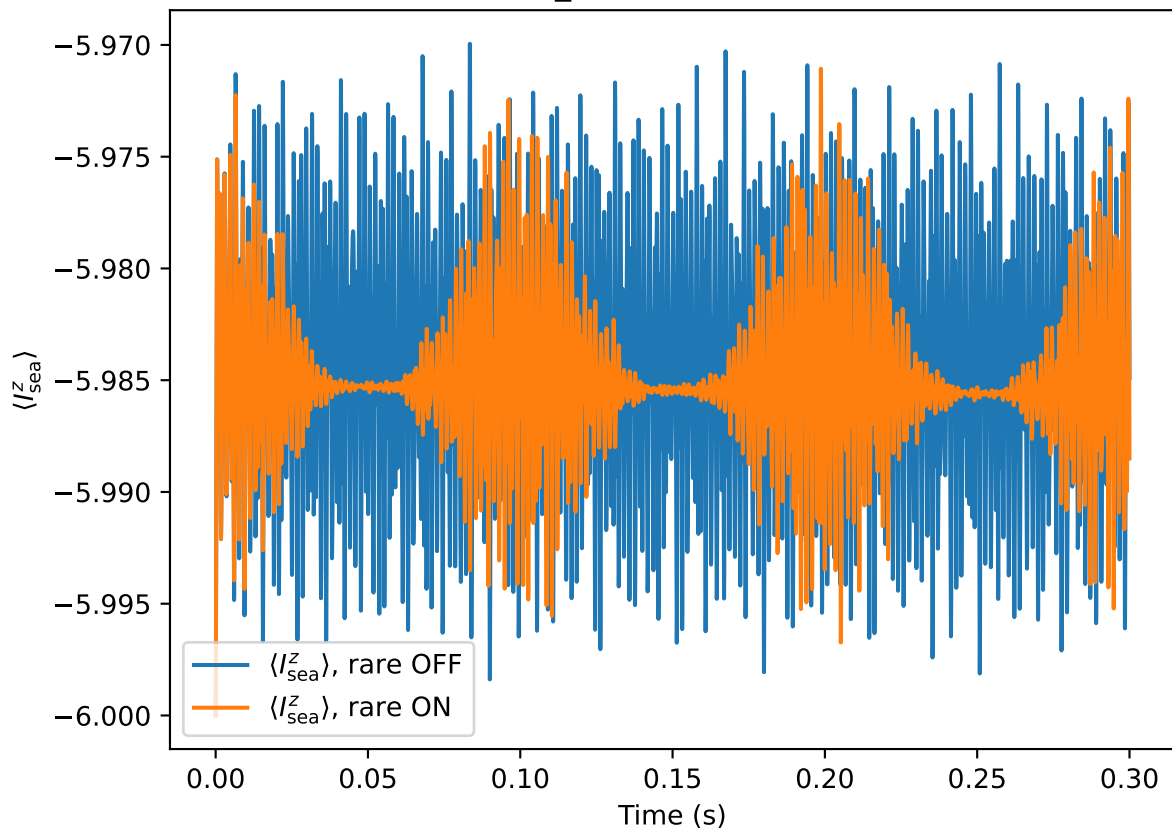
$\delta_A = +500.0$ Hz (pseudo T_1 envelope)



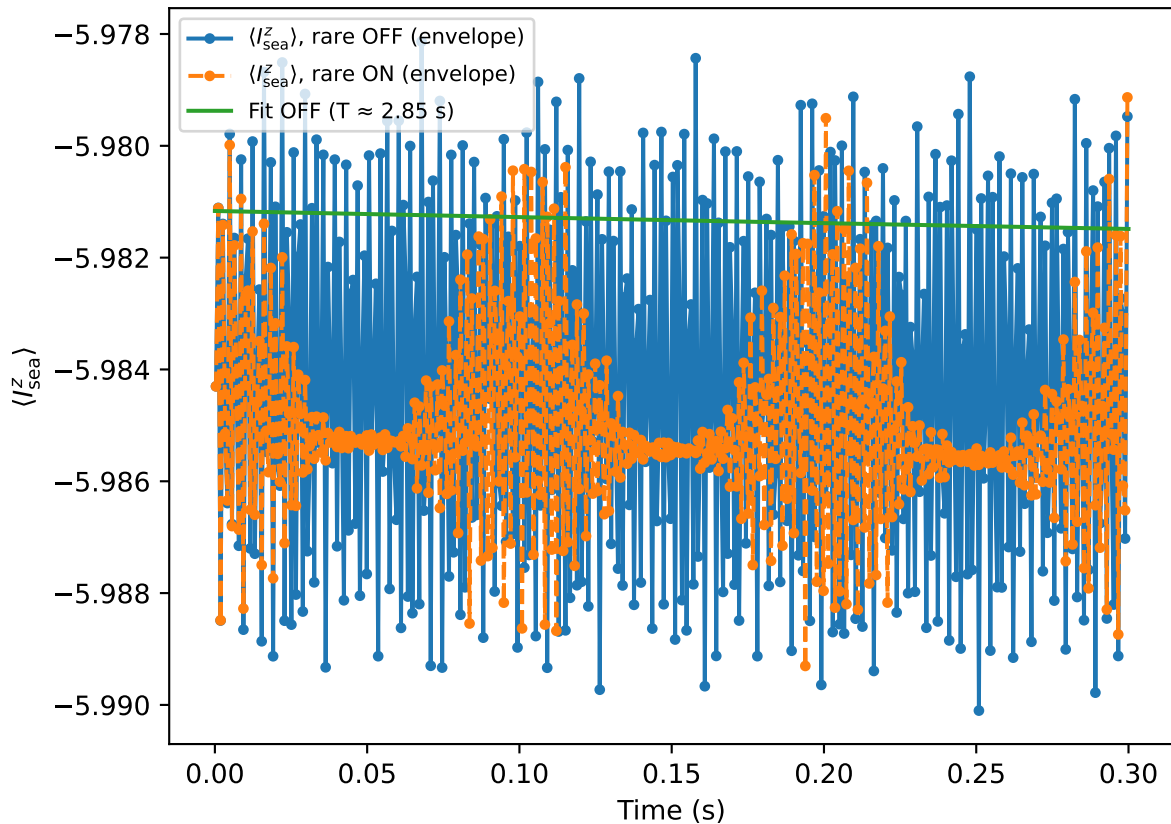
$\delta_A = +500.0$ Hz (rare drive OFF)



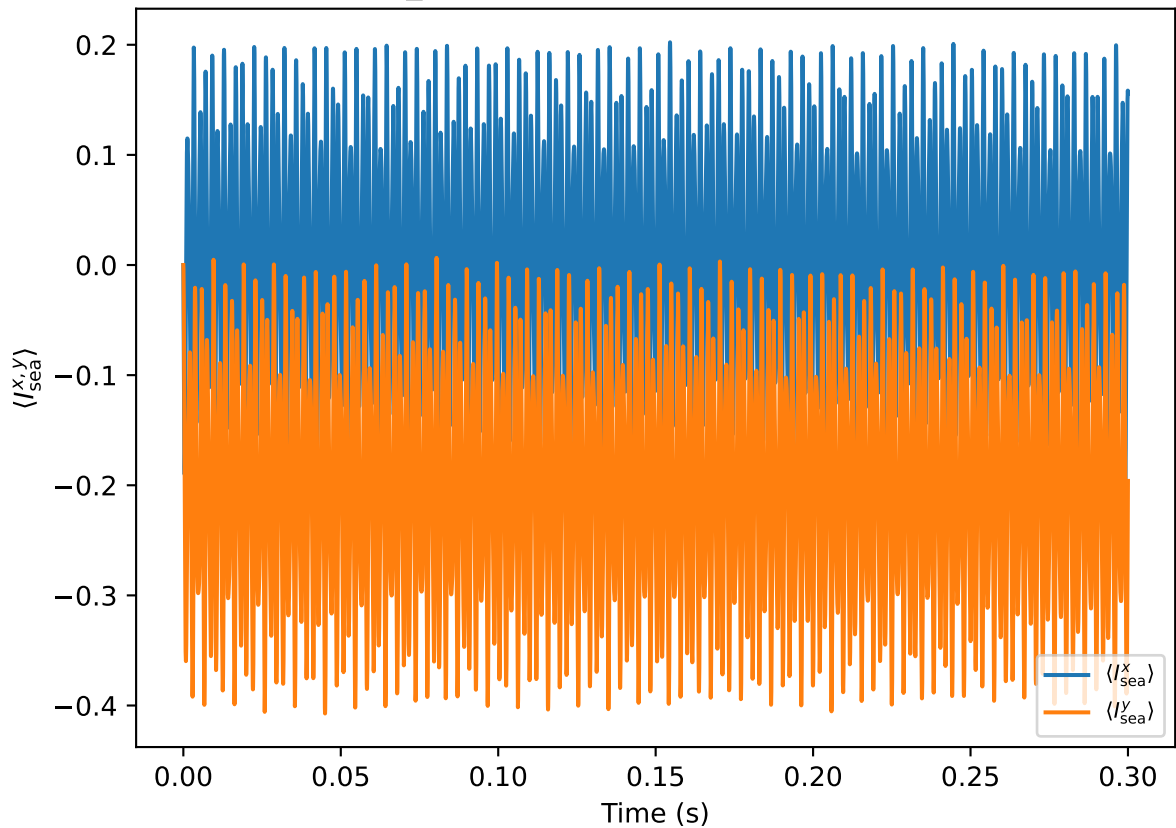
$\delta_A = +625.0$ Hz



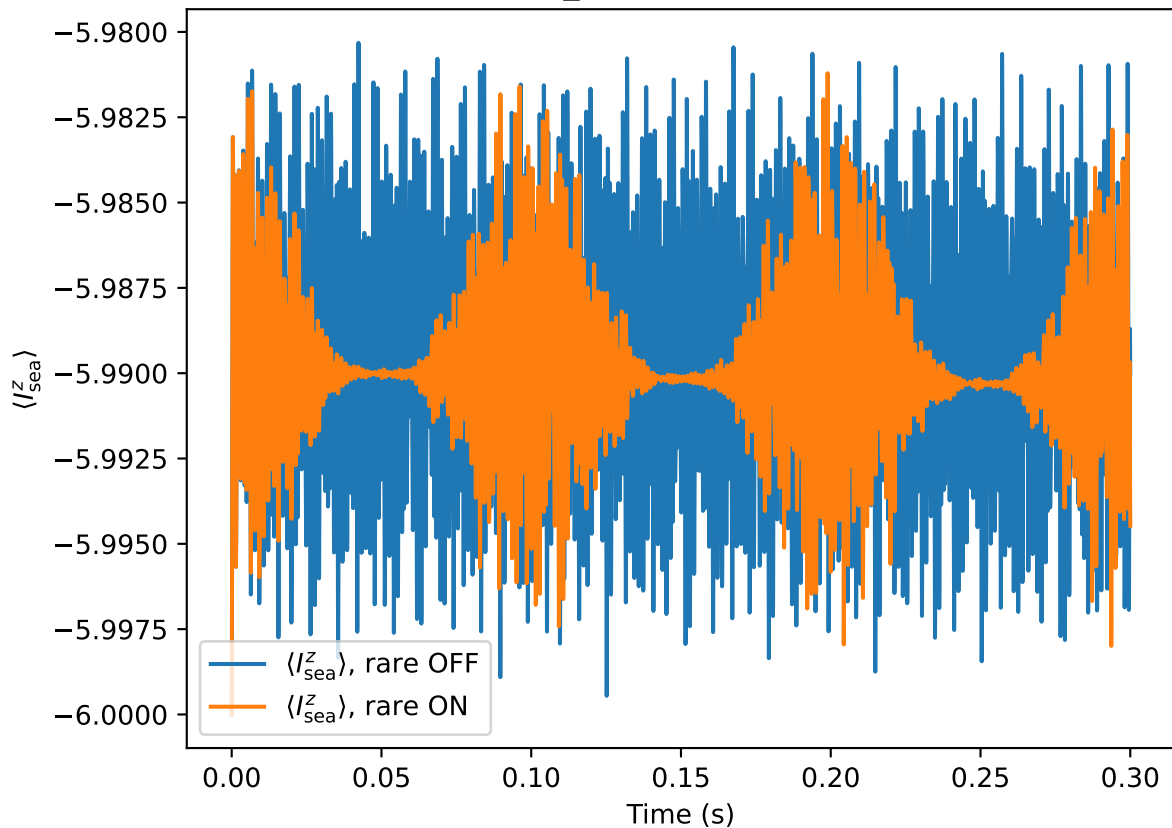
$\delta_A = +625.0$ Hz (pseudo T_1 envelope)



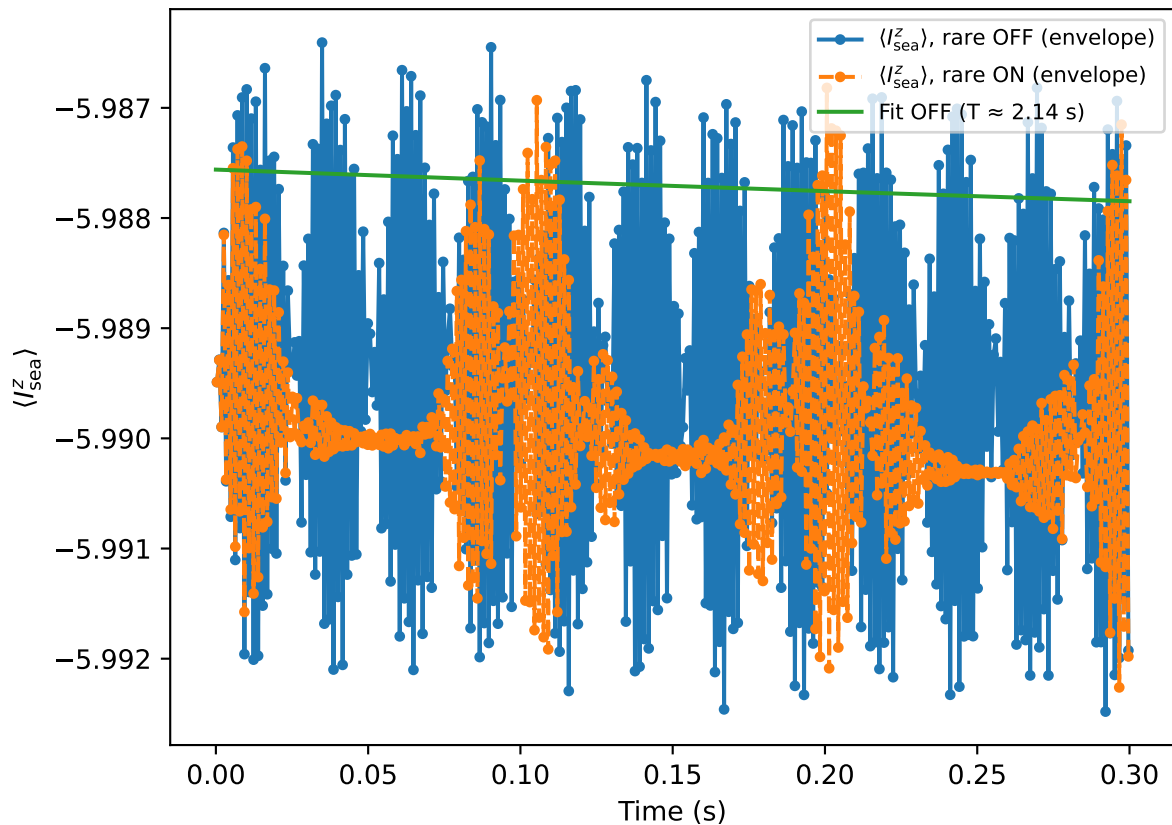
$\delta_A = +625.0$ Hz (rare drive OFF)



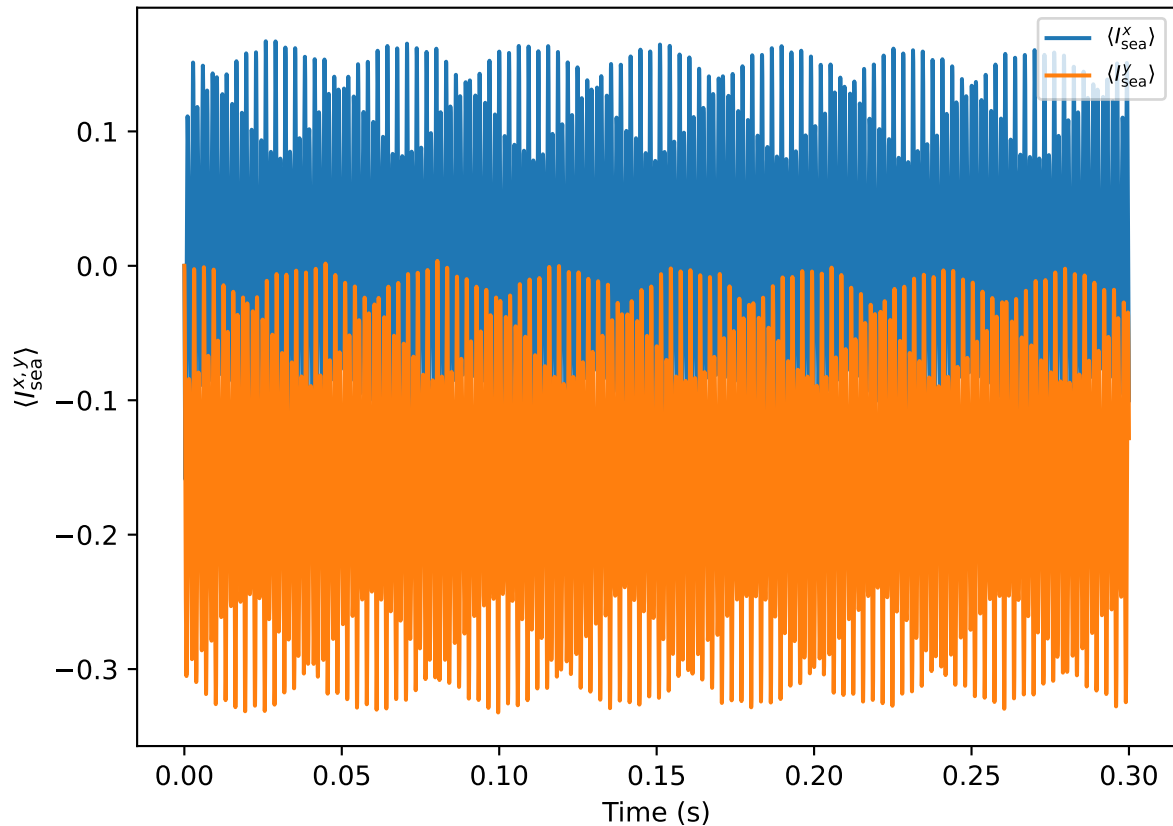
$\delta_A = +750.0$ Hz



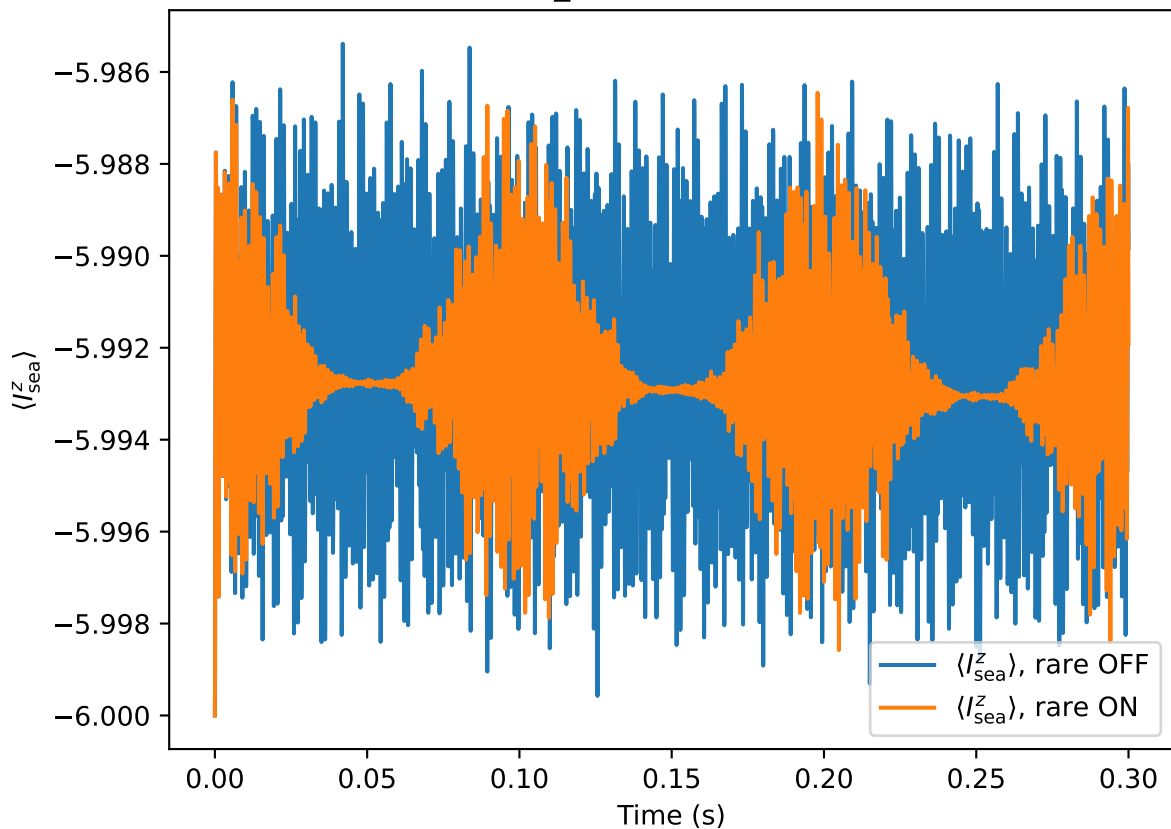
$\delta_A = +750.0$ Hz (pseudo T_1 envelope)



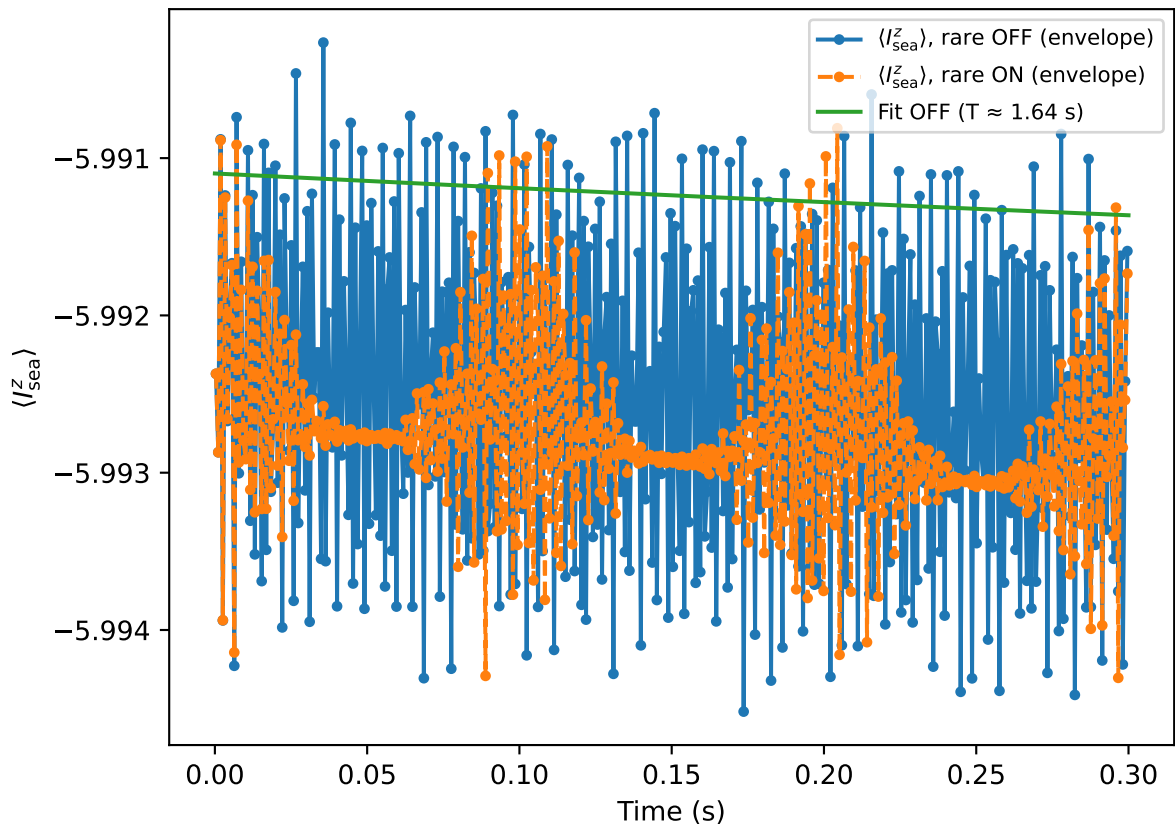
$\delta_A = +750.0$ Hz (rare drive OFF)



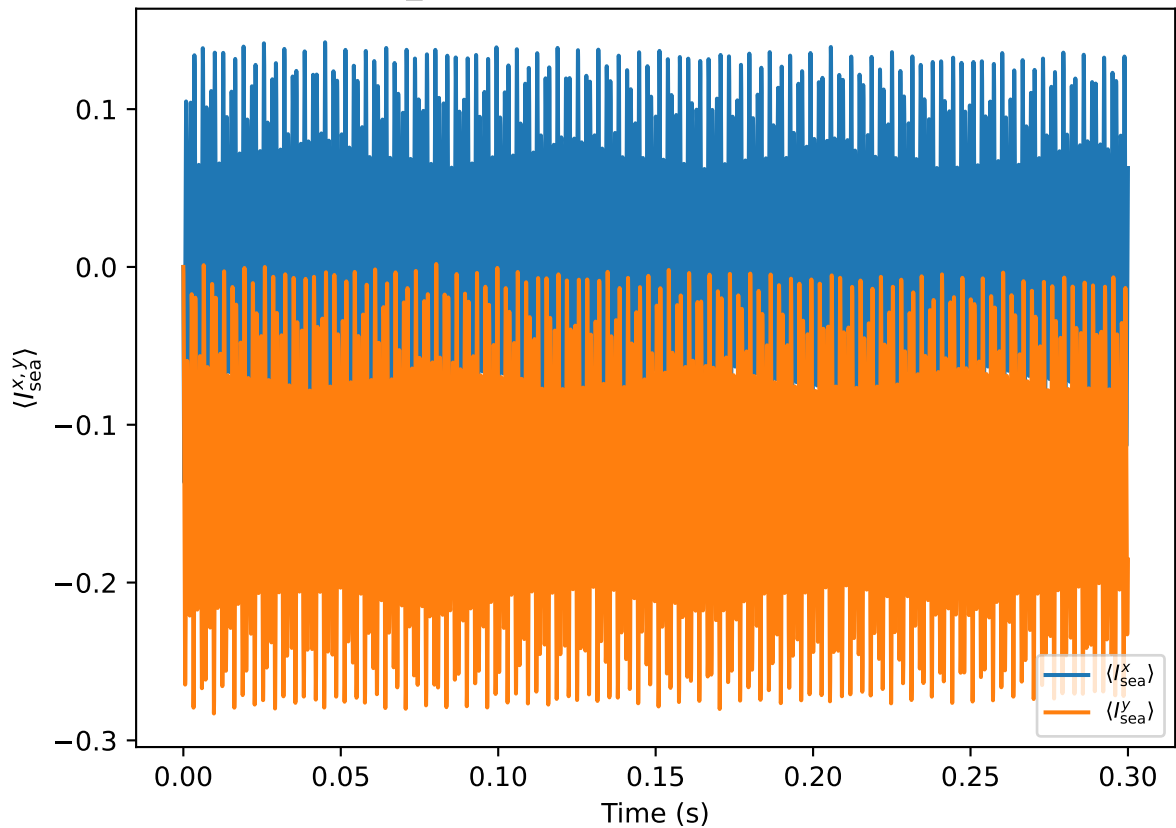
$\delta_A = +875.0$ Hz



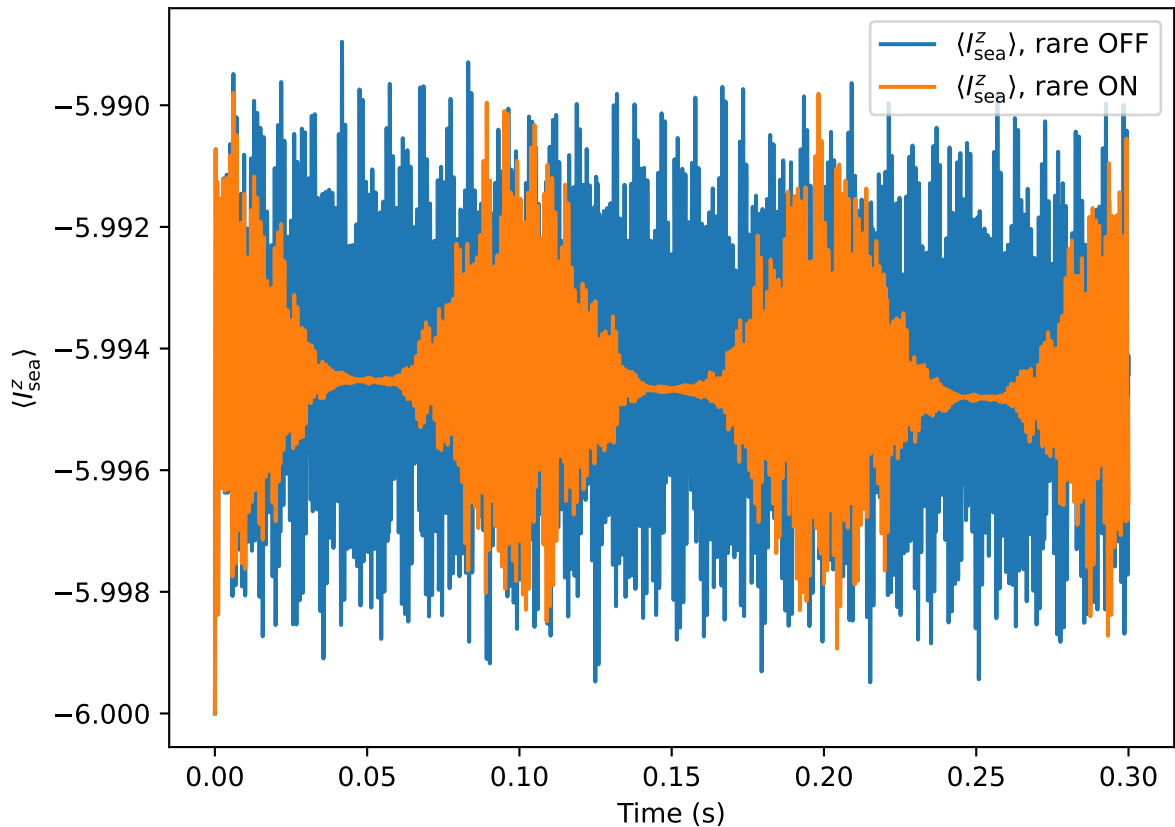
$\delta_A = +875.0$ Hz (pseudo T_1 envelope)



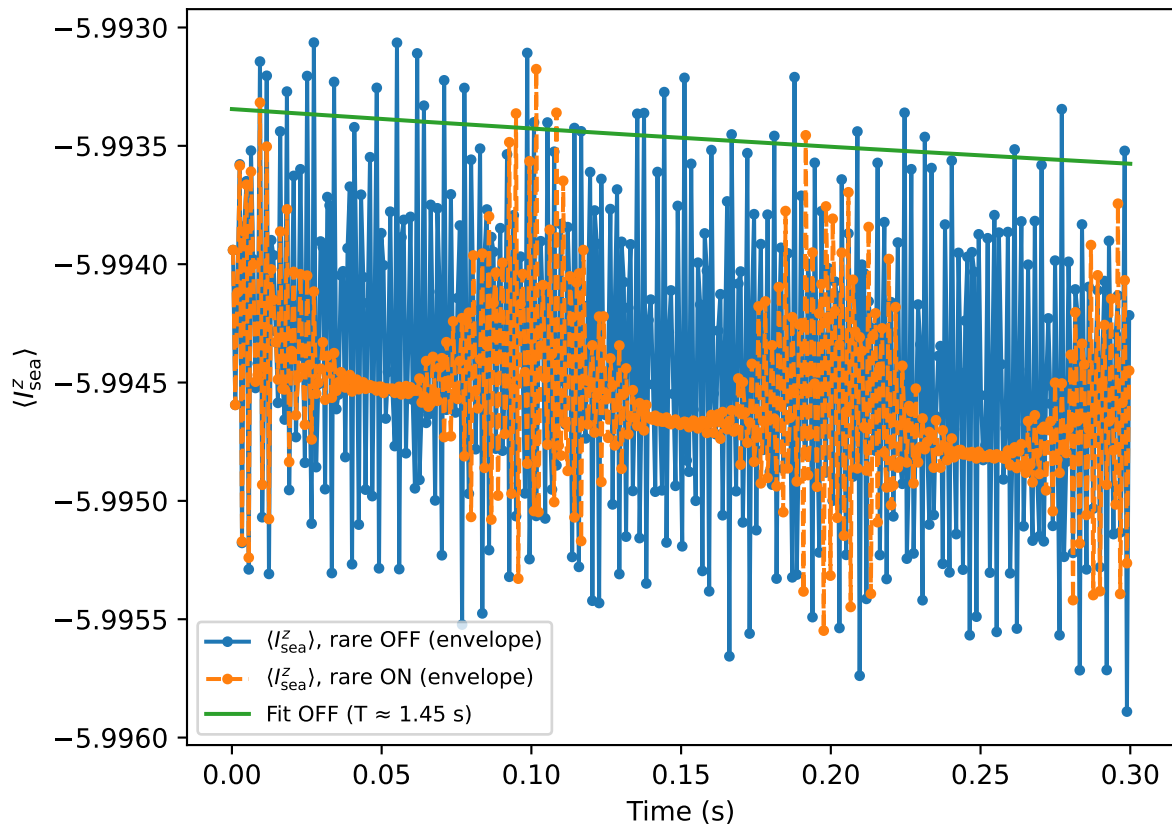
$\delta_A = +875.0$ Hz (rare drive OFF)



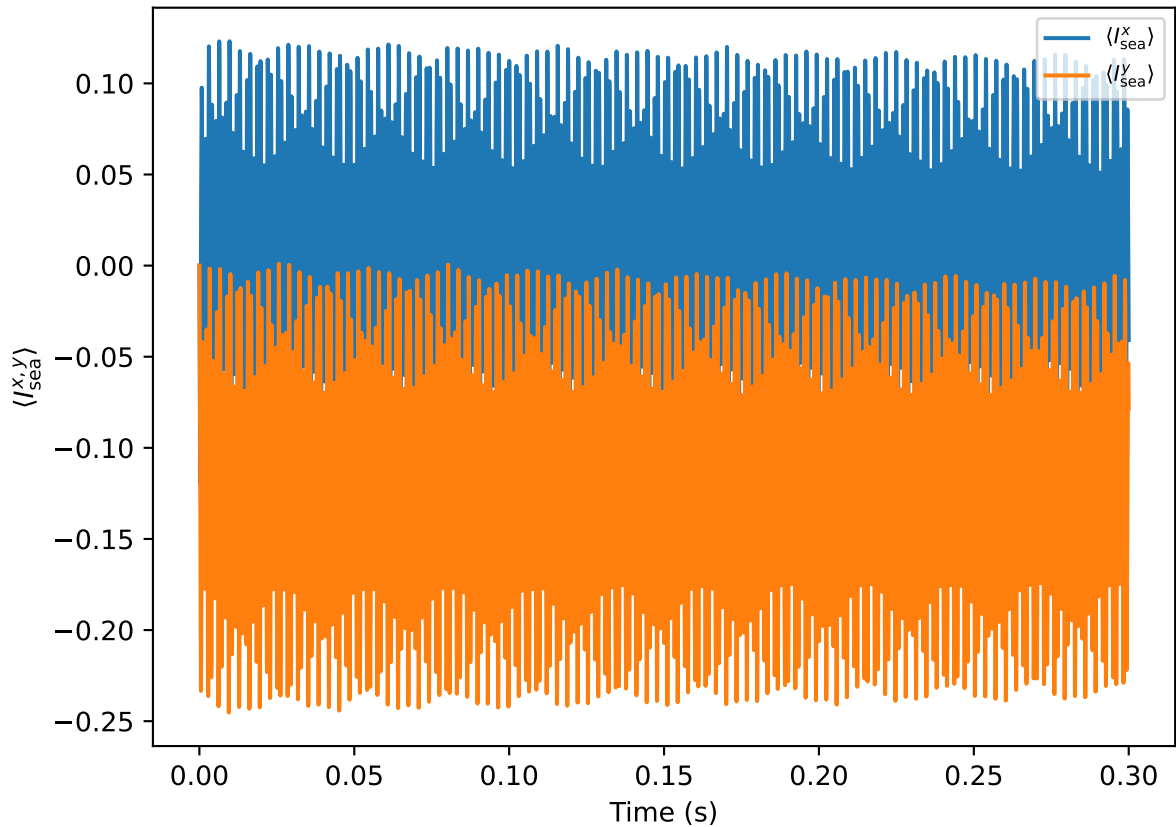
$\delta_A = +1000.0$ Hz



$\delta_A = +1000.0$ Hz (pseudo T_1 envelope)



$\delta_A = +1000.0$ 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 |
|----------|--------------|-------------|
| ----- | | |
| +0.0 | 0.188 | 47.6 |
| +125.0 | 1.55 | NA |
| +250.0 | 25 | 0.652 |
| +375.0 | 23 | 5.32 |
| +500.0 | 90.3 | 4.78 |
| +625.0 | 2.85 | NA |
| +750.0 | 2.14 | NA |
| +875.0 | 1.64 | NA |
| +1000.0 | 1.45 | NA |