

δx

☒

δy

☒

Damped Oscillator

$y = A_o e^{-bx} \sin(\omega x + \delta) + C$

$\chi^2_{\text{reduced}} = 1.01\text{e}+04$

Parameter	Value	Uncertainty
A_o [start: 7.16e-01]	1.411e+02	0
b [start: 1.00e+00]	6.864e+01	0
ω [start: 4.67e+00]	6.183e+00	0
δ [start: 9.33e+00]	1.749e+00	0
C	8.910e-03	4.212e-02

Jacobian not full rank, uncertainties may be zero

The figure consists of two vertically stacked plots sharing a common x-axis representing Time in seconds (s), ranging from 3 to 10.

The top plot displays the measured Angle in radians (rads) on the y-axis, ranging from -0.6 to 0.6. The data points, represented by blue squares, show a clear oscillatory pattern. A horizontal grey band is centered around 0.0 rads, indicating the range of the fit.

The bottom plot displays the Residual (effective) on the y-axis, ranging from -100 to 100. The data points, represented by black squares, show a clear oscillatory pattern, indicating the quality of the fit. A horizontal dotted line is drawn at 0, representing the zero residual line.