Here in the first section we present plots demonstrating that, regardless of the value of \( c_1 \), the minimum value of \( \epsilon \) is always at \( c_0 = 0 \) for \( \omega \lesssim 45k \), and at \( |c_0| = \pi/2 \) for \( \omega \gtrsim 45k \). In the third section we show the data points and the corresponding fit to these points given by the function in Eq.(5).
I. THE MAXIMUM PERFORMANCE AND THE VALUE OF $C_0$

In Fig. 1, we display four plots that show how the maximum performance changes abruptly from $c_0 = 0$ below $\omega \approx 45k$ to $|c_0|^2 = \pi/2$ above it. For $\omega < 30k$ there is only a single maximum in the performance as function of $c_0$, and this occurs at $c_0 = 0$. Between $\omega = 30k$ and $\omega = 45k$ a second local maximum appears at $c_0 = \pm \pi/2$. At $\omega = 45k$ the two maxima are approximately equal (to within the accuracy of our simulations), and for $\omega > 45k$ the second maxima overtakes the first, and so the optimal value of $c_0$ switches from 0 to $\pm \pi/2$.

FIG. 1. Plots of the negative natural logarithm of $\epsilon = 1 - P$ (the steady-state error) vs. control parameters $c_0$ and $c_1$ for four values of the feedback strength: (a) $\omega = 10k$; (b) $\omega = 30k$; (c) $\omega = 45k$; (d) $\omega = 50k$. The simulation is done by setting $k = 1$ (that is, we measure time in units of $k$), $\gamma = 0.01k$ and $n_T = 0.1$, and averaging over 128000 noise realizations.

II. FITTING THE FUNCTION FOR $C_1$

In Fig. 2 we show the numerical results for the optimal value of $c_1$ as a function of feedback strength, for three values of the noise rate $\gamma$. This function is

$$c_1 = -A - B[1 - e^{-\gamma \omega / k}],$$

where $A$, $B$, and $r$ are the fitting parameters. The values of these parameters, for the three values of $\gamma$ are given in Table 1 in the paper. For these simulations we set $k = 1$ (that is, we measure time in units of $k$) and $n_T = 0.1$, and we average over 128000 noise realizations.

FIG. 2. for the optimal value of $c_1$ as a function of feedback strength, for three values of the noise rate $\gamma$: (a) $\gamma/k = 0.1$; (b) $\gamma/k = 0.2$; (c) $\gamma/k = 0.3$. The error-bars show our estimates of the error in the numerical value of $c_1$, given the accuracy with which we can determine the minimum of $\epsilon$. 
