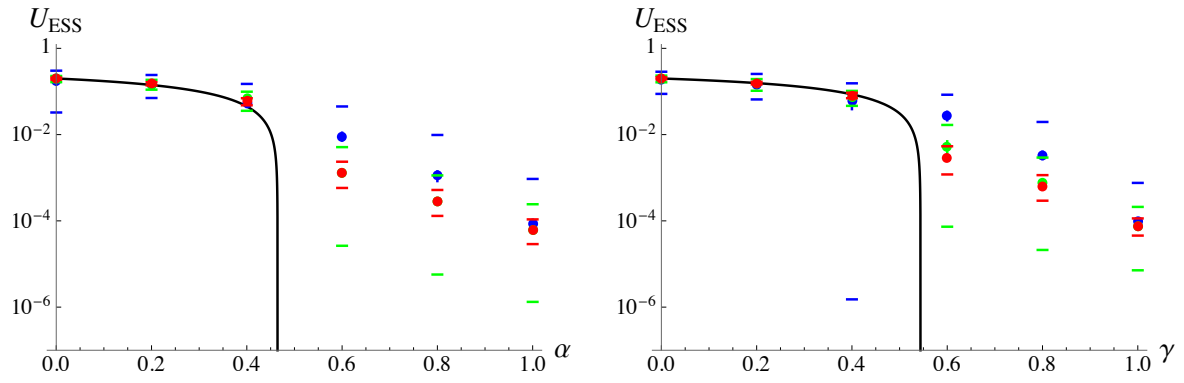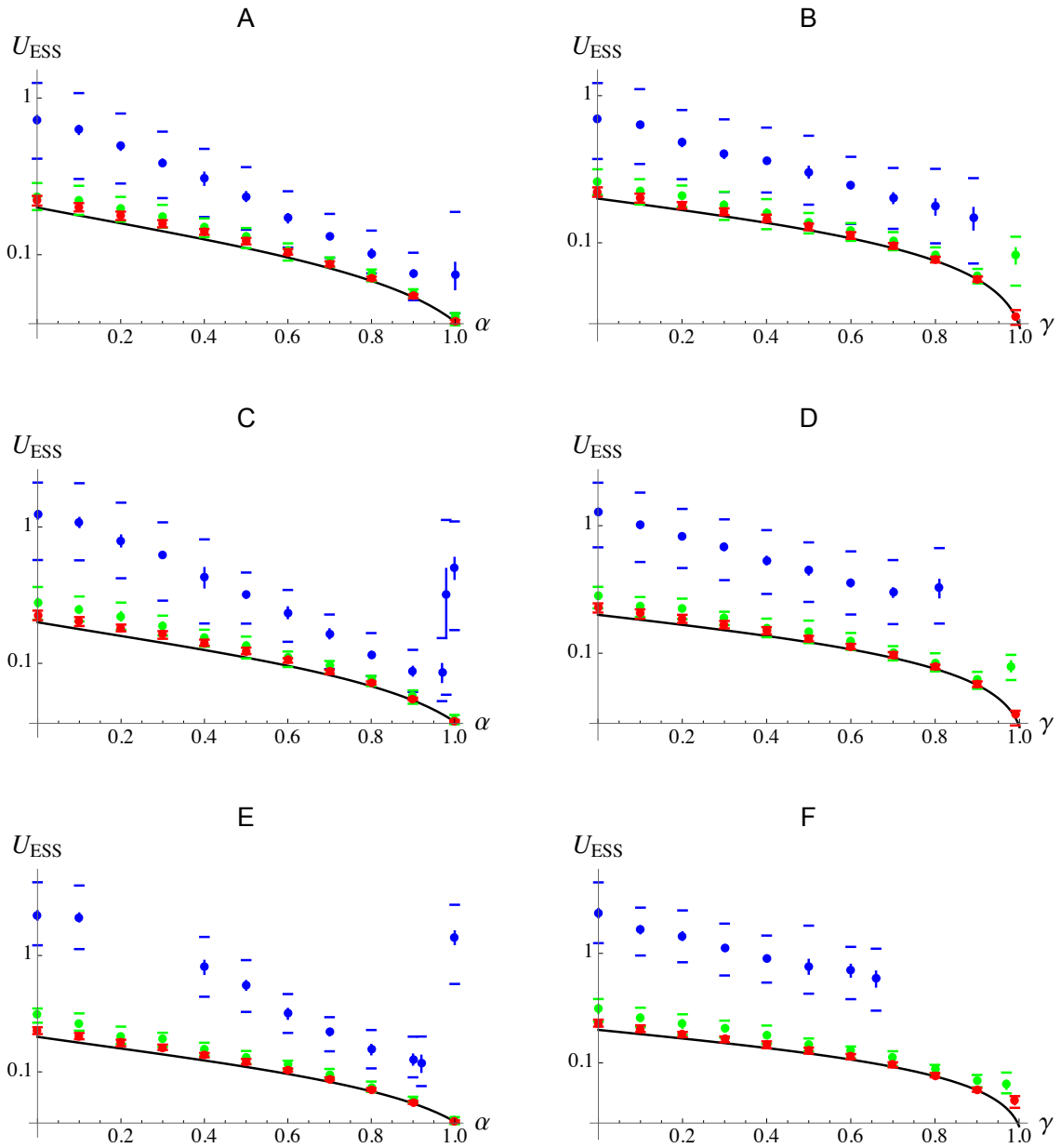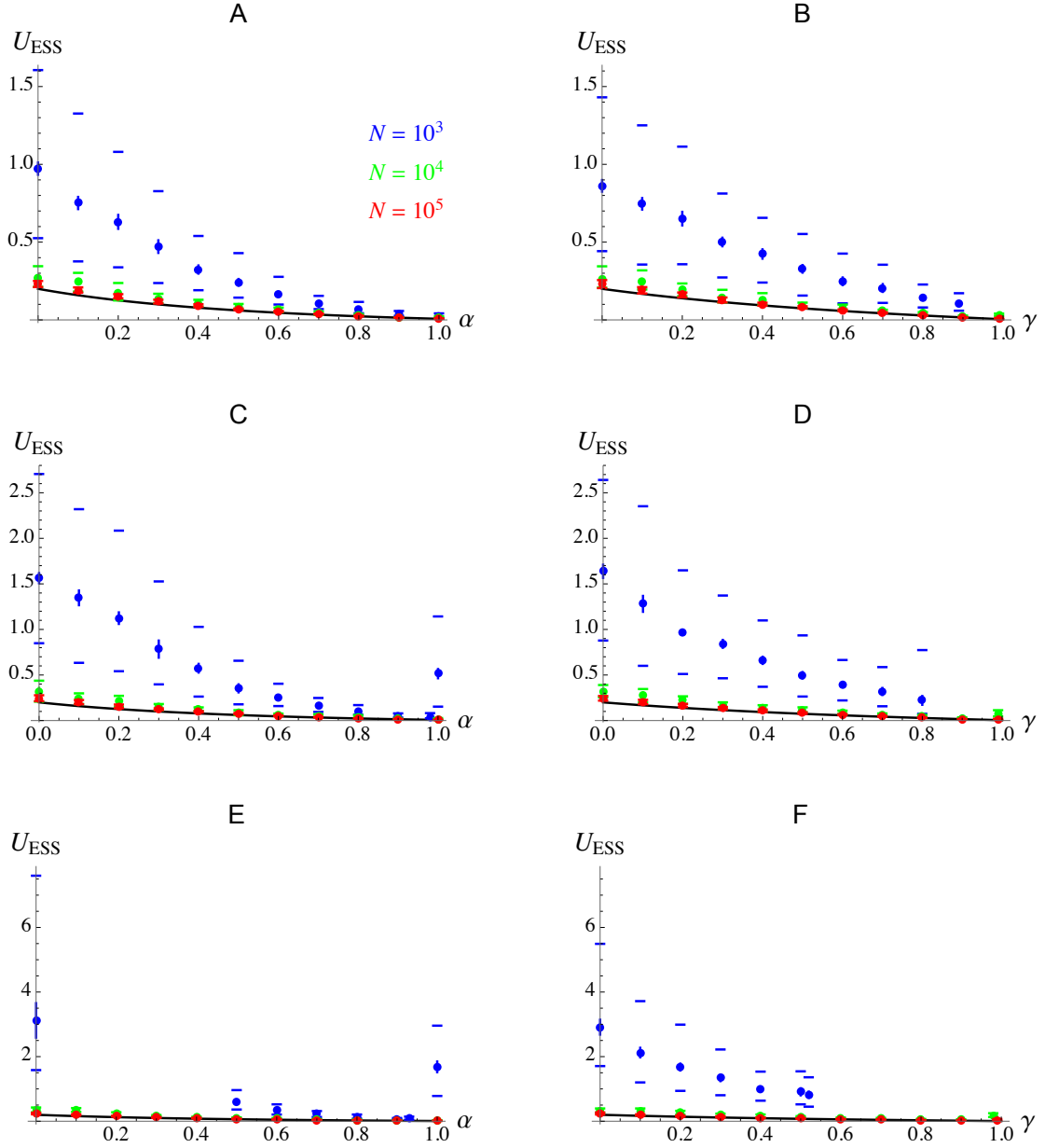**Figure S1.** Same as Figures 2A, 2B in the main text, the dashed curves showing the

approximations obtained for U_{ESS} when replacing h and r by the effective parameters

$h(1-F)+F$ and $r(1-F)$ (under partial selfing) and r by $r(1-\gamma)$ (under partial

clonality) in the expression for indirect selection under random mating (equation 23).

Figure S2. Same as Figure 3E, F in the main text, with U on a log-scale. The bottom 98th percentile is at zero for some of the points with $N = 1000$ (blue), and thus does not appear.
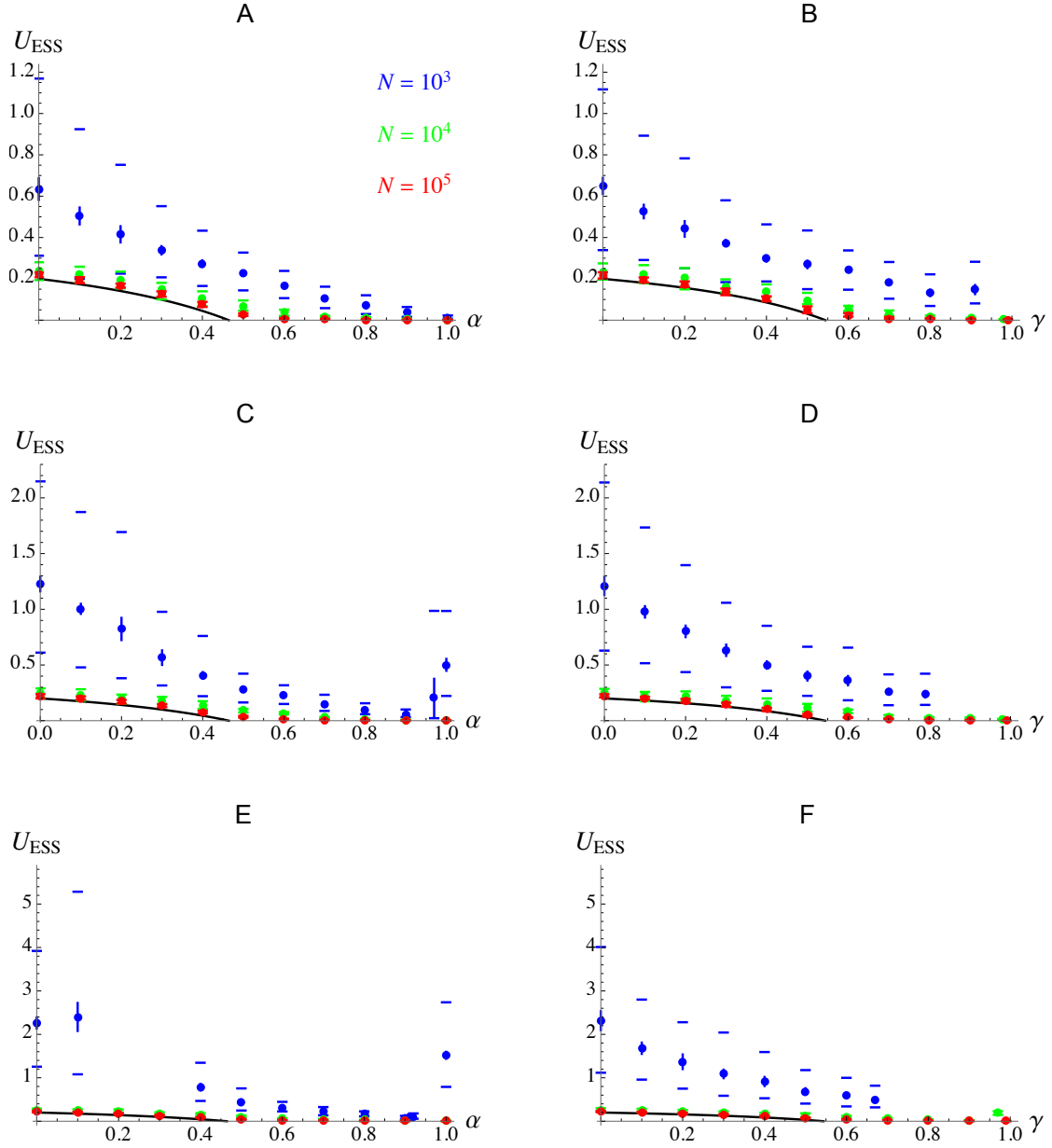
**Figure S3.** Same as Figure 5 in the main text, with U on a log-scale.

Figure S4. Same as Figure 5 in the main text, using the cost function $f_c(U) = U^c$, with $c \approx 0.007$ (see Figure 4). In E, a runaway leading to very high values of U occurred for $N = 10^3$ and $\alpha = 0.1, 0.2, 0.3, 0.4$ and $0.94 \leq \alpha \leq 0.99$.
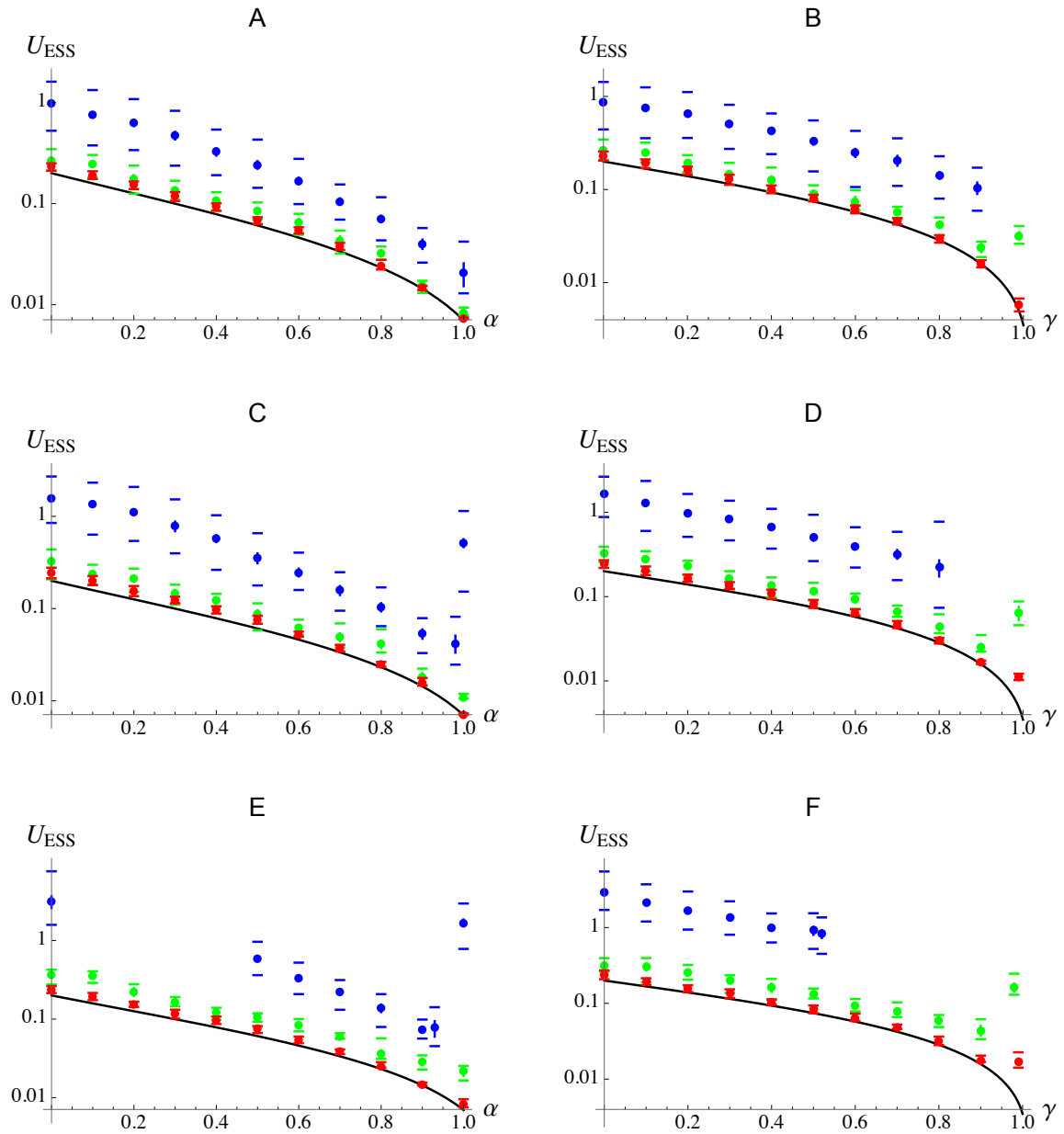
Figure S5. Same as Figure S4, with U on a log-scale.

Figure S6. Same as Figure 5 in the main text, using the cost function $f_c(U) = e^{aU + \frac{b}{2}U^2}$, with $a \approx 0.1$ and $b \approx -0.35$ (see Figure 4). In E, a runaway leading to very high values of U occurred for $N = 10^3$ and $\alpha = 0.2$, 0.3 and $0.93 \le \alpha \le 0.99$.
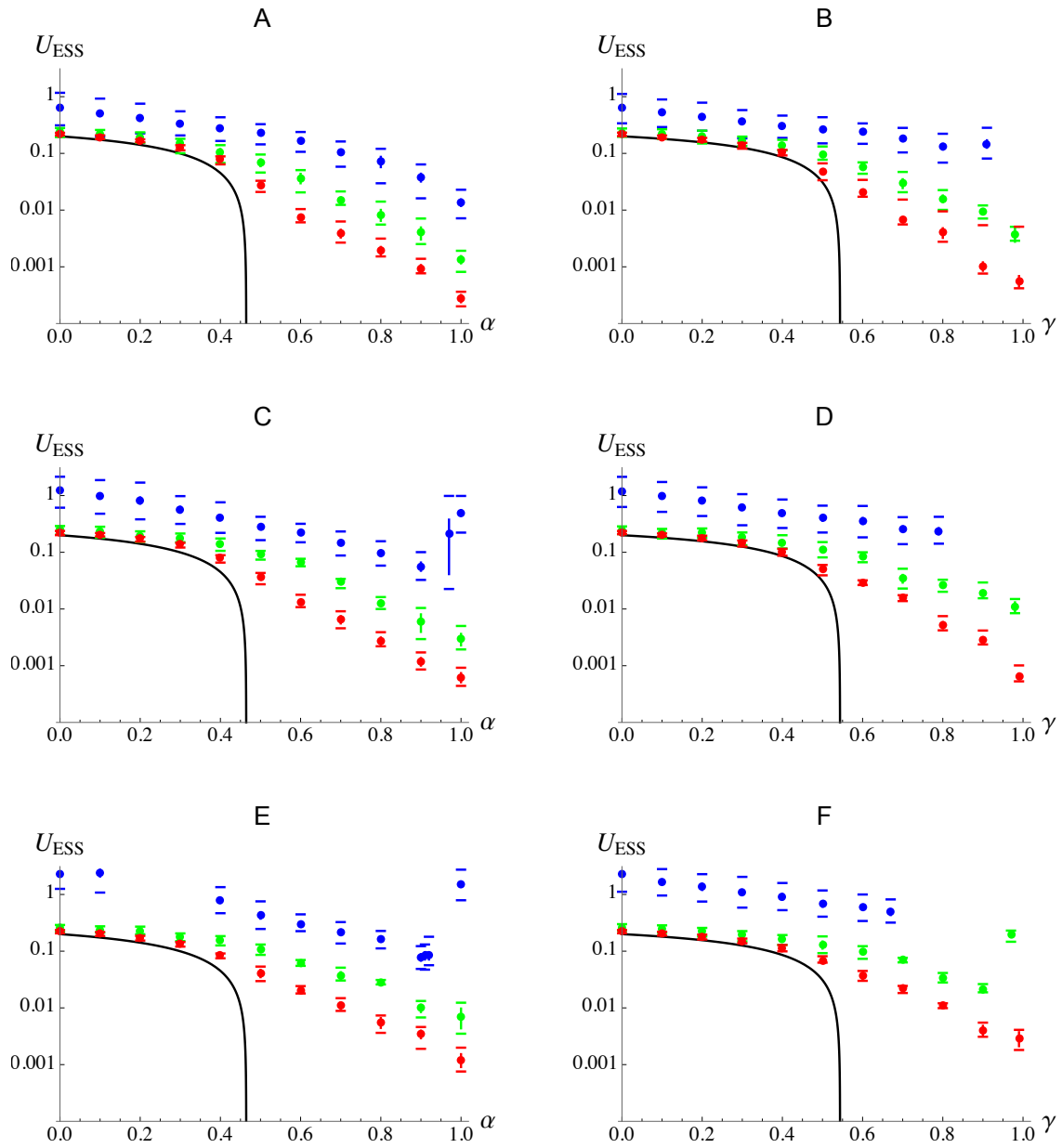
Figure S7. Same as Figure S6, with U on a log-scale.