



Figure S5. Average results of 50 simulations performed for the plasmid containing cells, employing different values of the α parameter which describes probability of the stochastic emergence of plasmid units defective in replication. The initial parameters are: uniform distribution described by Eq. 9 with (Panel A) $N_0=20$ and (Panel B) $N_0=5$ ($\delta=0$). The 3-D plots show distribution of a single cell copy number in a bacterial population for the following parameters: $N_0=20$ and $\alpha=0.5$ (C) and $\alpha=1.5$ (D).