

Fig. S5 - Extreme values of energy-/time- costs for expression vary with expression level (microarray data) for plant genes.

Under the assumption that extreme sequence lengths scale as logarithmic functions of expression level, the black solid curve shows how the extreme energy-cost will change with expression level, while other curves indicate the trends of time-cost, which is assumed to scale as sublinear functions (with α being the scaling factor) of expression level. It is shown that, smaller α implies higher efficiency requirements for highly expressed genes. Y-axis represents the scale of energy-cost, while numerical values of time-cost have been scaled to the same range for the convenience of comparison. $a=66094$, $b=3494$, taken from the case of extreme transcript lengths versus total expression level for *Arabidopsis* genes.

