



Figure S1 Numerical fit of the parameters using data from (Teixeira et al. 2004). (A) Numerical fit of the probability of elongation. The probability of elongation (continuous line) from equation 2 was plotted as a function of telomere length for parameters $\theta = 0.048$ and $L_0 = 90$ bp. This function was fitted to the data from (Teixeira et al. 2004) (dots). Goodness of fit was given by SSE = 0.6021 (summed square of residuals), R-square = 0.378, adjusted R-square = 0.3558 and RMSE = 0.1466 (root mean squared error). (B) Numerical fit of the law of the number of nucleotides b added per elongation. In continuous line, the cumulative distribution function of the geometrical law of parameter p was plotted and fitted to the empirical cumulative distribution extracted from experimental data from Teixeira et al., 2004 (dotted line). We found a value for $p = 0.026$. Goodness of fit was given by SSE = 0.03822, R-square = 0.9688, adjusted R-square = 0.9688 and RMSE = 0.06182. (C) Probability distribution function of b . The probability distribution function associated with the value $p = 0.026$ found in (B) was plotted.