Supplementary Information: Coarse-grained simulations of stretching entangled DNA using oscillating electric fields.

Richard S. Graham\textsuperscript{1} and Ronald G. Larson\textsuperscript{2}

\textsuperscript{1}School of Mathematical Sciences, University of Nottingham, Nottingham NG7 2RD, UK.
\textsuperscript{2}Department of Chemical Engineering, University of Michigan, Ann Arbor, Michigan 48109, USA.

The accompanying movie shows the DNA primitive path during a simulation illustrating the stretching mechanism. Model parameter used are the same as in the main text, with the field given by $\epsilon = 10$ and $\omega \tau_e = 0.3$. The simulation runs for a time period of $23\tau_e$. The colours represent the local stretch, with red being highly stretched through to light green being unstretched.