



Figure S5. Multiple orientations of the overlays of the MAL 123-218, NL4-3 PBS/TLE, and tRNA^{Lys3} envelopes. (A) *Ab initio* envelopes of NL4-3 PBS/TLE and MAL 123-218 RNAs are shown in black and red, respectively. The two envelopes were superimposed using the SUPCOMB program (Konarev et al. 2006) and several orientations of this superimposition are shown. The red arrows indicate the protrusion that is present only in the MAL 123-218 envelope. (B) *Ab initio* envelopes of tRNA^{Lys3} (Jones et al. 2014) and MAL 123-218 shown in black and red, respectively. The two envelopes were superimposed using the SUPCOMB program (Konarev et al. 2006) followed by manual adjustments to the fit; several orientations of this superimposition are shown.