

S3 Figure. Interface noise reduction with mutual Hb-Kr interaction. Hb – red, Kr – green. All simulation results shown as overlays at 1 minute intervals, t=20-29. (A) no Kr, Hb expression depends on Bcd and Hb; (B) static Kr (Kr is not dynamically maintained, it is a fixed inhibition gradient for hb); (C) Hb-Kr mutual inhibition (mut inh, both are activated by Bcd and inhibit each other); (D) Hb dual mechanism (Hb activates and inhibits Kr, Kr simply inhibits hb). (E) Statistics for multiple simulations with each mechanism. Over t=20-29, the mut inh and Hb dual mechanisms have lower ranges in the position at which Hb crosses half-height than with no Kr or with static Kr (t-test of mean differences, p<0.05). (A), (B), (C), (D) show simulations with average range of position for each mechanism. This indicates that not only simple Kr inhibition of hb (B), but their mutual interaction, plays a role in making their interface more determinate.