

A Predictive Model to Probe the Impact of Gravity and Surface Tension on Rising Wetting Thin Films

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Supporting Information

In addition to the structure factor, $S(k, t)$, illustrated in Fig. 5 of the manuscript, we verified the structure factor for $g' = 0.01, \sigma = 0$, at 5 logarithmically spaced KMC time units between $t = 10^3$ and 10^6 with $L_x = 512$ averaged over 200 independent KMC simulations, as shown in Fig. S1, indicating $\alpha \approx 0.35$.

Results shown in Fig. S1 suggest that for rather large α , the interface roughness is partly correlated with the longest wave length that can be formed during the rise of the liquid layer.

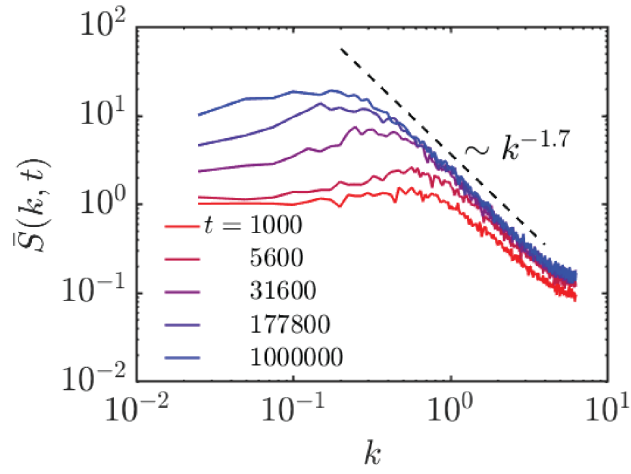


Figure S1. Structure factor of the interface roughness at 5 logarithmically spaced KMC time units between $t = 10^3$, and 10^6 , from red to blue, respectively, averaged over 200 independent KMC simulations for $g' = 0.01, \sigma = 0$. Other parameters are $A = 30, J = 3, L_x = 512$, and $L_y = 300$. Dashed line is the guide for the eye, illustrating $k^{-1.7}$ behavior.