Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Restricted height discrete model JIN MIN KIM, Soongsil University — We introduce a discrete growth model following the Edward- Willikinson equation with a conservative noise. The surface width $W(h,t)$ of our model follows $W^2(L,t) = W_i^2 - L^{2\alpha} f(t/L^z)$, where W_i is an intrinsic width. By subtracting the surface width from the intrinsic width, the roughness exponent $\alpha \approx -d_s/2$ and the growth exponent $\beta \approx -d_s/4$ are successfully obtained for the substrate dimension $d_s = 1, 2$ and 3. Various discrete models with conserved noise are also discussed.

Jin Min Kim
Soongsil University

Date submitted: 29 Dec 2008 Electronic form version 1.4