

Abstract Submitted  
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**Relaxation of Terrace-width Distributions: Novel Analysis and Features**<sup>1</sup> T.L. EINSTEIN, Univ. of Maryland, College Park (UM), AJMI BH. HAMOUDA, UM & Univ. Monastir, Tunisia, A. PIMPINELLI, UM & U.B.P.Clermont-2 & Science Attache, French Consulate, Houston — We describe a Fokker-Planck scheme to describe the relaxation of the terrace-width distribution (TWD) on a vicinal surface toward the generalized Wigner form describing equilibrium.<sup>2</sup> We performed KMC calculations on the standard minimal SOS model to show that the time constant gives physical information, in particular the energy barrier of the rate-determining process. For close-packed steps, this involves kink-antikink generation, breaking 3 rather than the expected 2 lateral bonds (the latter associated with equilibrium fluctuations). We discuss strengths and limitations of this FP procedure, higher moments of the distribution beyond the variance, and generalizations to other step orientations.

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<sup>2</sup>A. BH. Hamouda, A. Pimpinelli, & TLE, Surface Sci. 602 (2008) 3569

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