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Ensemble Approach to Vicinal Crystal Surfaces RYAN P. JACOB, HOWARD L. RICHARDS, Physics, Texas A & M University-Commerce, T.L. EINSTEIN, Physics, University of Maryland — Recent studies of the Step Position Distribution (SPD) have made it clear that there exists a characteristic length L_W (along the y-axis, parallel to the average step direction) at which the variance of the SPD is correctly predicted by the Pairwise Einstein Model. We extend this to the case when neighboring steps have different stiffnesses. A similar characteristic length along y must be introduced to calculate average properties from an ensemble of Gruber-Mullins models, subject to the constraint that the variance of the Terrace Width Distribution (TWD) is as given by the Pairwise Einstein Model. We discuss the relationship between these length scales for a range of step interactions.

Ryan P. Jacob
Texas A & M University-Commerce

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