

Abstract Submitted
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Progress in Application of Generalized Wigner Distribution to Growth and Other Problems¹ T.L. EINSTEIN, JOSUE MORALES-CIFUENTES, Univ. Maryland, College Park, ALBERTO PIMPINELLI, Rice Quantum Institute, DIEGO LUIS GONZALEZ, Univ. del Valle, Cali, Colombia — We recap the use of the (single-parameter) Generalized Wigner Distribution (GWD) to analyze capture-zone distributions associated with submonolayer epitaxial growth². We discuss recent applications to physical systems, as well as key simulations. We pay particular attention to how this method compares with other methods to assess the critical nucleus size characterizing growth. The following talk discusses a particular case when special insight is needed to reconcile the various methods. We discuss improvements that can be achieved by going to a 2-parameter fragmentation approach. At a much larger scale we have applied this approach to various distributions in socio-political phenomena (areas of secondary administrative units [e.g., counties] and distributions of subway stations).

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²TLE, AP, DLG, J. Cryst. Growth 401, 67 (2014); TLE, JRM-C, AP, DLG, J. Phys. Conf. Ser. 640, 012024 (2015).

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