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# Barrycentric asymptotics for orthonormal polynomials and their progeny

Doron Lubinsky\*

[lubinsky@math.gatech.edu](mailto:lubinsky@math.gatech.edu)

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Barry Simon is the prime mover of one of the three revolutions that have transformed the study of orthogonal polynomials for general measures since the 1980's. We discuss some of the main features of asymptotics of these orthonormal polynomials, and related quantities such as Christoffel functions. We also present some open problems on asymptotics of even the classical case of weights on  $(-1, 1)$ , and selected applications to random matrices.

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\*School of Mathematics, Institute of Technology, Georgia Tech, 686 Cherry Street, Atlanta, GA 30332-0160, USA