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Victor W Guillemin^{*} (vwg@math.mit.edu), Department of Mathematics 2-207, MIT, Cambridge, MA 02139, and Alejandro Uribe and Zuoqin Wang. Superpositions of coherent states.

I will discuss in this talk applications of symplectic techniques to problems in semi-classical analysis. I'll begin by giving examples of some of the basic objects in this subject: pseudo-differential operators, Fourier integral operators and Toeplitz operators of semi-classical type, and then describe a simple, fairly intuitive way that I and my collaborators, Alex Uribe and Zuoqin Wang, have discovered of describing the Schwartz kernels of these operators as "superpositions of coherent states" (Received February 09, 2018)