

Motivated by a practical question of detecting outliers from the bulk in large point distributions in the real plane, an effective separation algorithm of point spectrum from continuous spectrum in 2D is outlined. The operations are solely involving power moments of the (unknown) positive measure, and the main tool is derived from the refined theory of semi-normal operators. The latter touching, and in fact being the source, of non-commutative geometry. Function theory concepts, such as complex polynomial approximation in the mean, polynomial bounded point evaluations in Lebesgue space will naturally enter into the picture.