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Jim Agler and **John E. McCarthy*** (mccarthy@math.wustl.edu). *Hankel vector moment sequences and the asymptotics of two variable Pick functions.*

A Pick function of d variables is a holomorphic map from Π^d to Π , where Π is the upper halfplane. Some Pick functions of one variable have an asymptotic expansion at infinity, a power series $\sum_{n=1}^{\infty} \rho_n z^{-n}$ with real numbers ρ_n that gives an asymptotic expansion on non-tangential approach regions to infinity. H. Hamburger in 1921 characterized which sequences $\{\rho_n\}$ can occur, in terms of an associated Hankel matrix. We shall discuss the analogous problem in two variables. (Received September 05, 2012)