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John T. Anderson* (anderson@mathcs.holycross.edu), Dept. of Mathematics and Computer Science, College of the Holy Cross, Worcester, MA 01610-2395. *Uniform Approximation by \square_b -harmonic functions.*

The Mergelyan and Ahlfors-Beurling estimates for the Cauchy transform give quantitative information on uniform approximation on a compact plane set K by rational functions with poles off K . We will present an analogous result for an integral transform on the unit sphere in \mathbb{C}^2 introduced by Henkin, and show how it can be used to study approximation by functions that are locally harmonic with respect to the Kohn Laplacian \square_b . (Received February 14, 2011)