1017-30-90   **Peter Duren*** (`duren@umich.edu`), Department of Mathematics, University of Michigan, Ann Arbor, MI 48109-1043, and **Eva Gallardo-Gutierrez** and **Alfonso Montes-Rodriguez**. *A Paley–Wiener Theorem for Bergman Spaces with Application to Invariant Subspaces.*

An analogue of the Paley–Wiener theorem is developed for weighted Bergman spaces of analytic functions in the upper half-plane. The result is applied to show that the invariant subspaces of the shift operator on the standard Bergman space of the unit disk can be identified with those of a convolution Volterra operator on a weighted L^2 space over the positive real line. (Received February 14, 2006)