

1077-30-328

Brent J Carswell and **Rachel J Weir*** (rweir@allegheny.edu), Department of Mathematics, Allegheny College, Meadville, PA 16335. *Weighted reproducing kernels and the Bergman space.*

Using weighted reproducing kernels, we describe the orthocomplement of gM in M when M is a singly generated shift invariant subspace of the Bergman space and g is a finite Blaschke product vanishing at the origin. We also discuss the case when g is an infinite Blaschke product, and we present an approximation result for weighted kernels corresponding to Blaschke products. The proofs all involve a formula relating reproducing kernels corresponding to two different measures, where one measure is a weighted version of the other. (Received August 22, 2011)