Meeting: 1003, Atlanta, Georgia, SS 25A, AMS Special Session on Complex and Functional Analysis, I

1003-30-487 **Joseph A. Cima*** (cima@email.unc.edu), Department of Mathematics, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, and **Alexandru Aleman** and **Alec Matheson**.
Projections on Bergman Space.

The following theorem is known.

Theorem. If P is the operator of Bergman projection on $L^1(D, dA)$ given by

$$Pf(z) = \int_D \frac{f(w)}{(1 - z\overline{w})^2} dA(z),$$

then P is weak type $(1, 1)$ in the sense that there is an absolute constant C such that

$$(Pf)_*(t) \leq \frac{C||f||_1}{t}.$$

The symbol $(Pf)_*(t)$ represents the area of the set

$$[z \in D \ \ ||Pf(z)| > t].$$

We generalize this to some weighted Bergman spaces. (Received September 16, 2004)