

Meeting: 999, Nashville, Tennessee, SS 7A, Special Session on Operator Theory on Function Spaces

999-47-227 **Zhijian Wu*** (zwu@gp.as.ua.edu), Department of Mathematics, The University of Alabama,
Tuscaloosa, AL 35487. *Area Operators on Bergman spaces.*

We study the boundedness and compactness of the area operators on Bergman spaces. The area operator with symbol μ is defined by

$$G_\mu(f)(e^{it}) = \int_{\Gamma(e^{it})} |f(z)| d\mu.$$

Here $\Gamma(e^{it})$ is the usual nontangential cone with the vertex e^{it} inside the unit disk and μ is a nonnegative measure on the unit disk. We characterize μ so that the area operator G_μ is bounded or compact from Bergman space to L^p . (Received August 23, 2004)