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**Jie Miao\*** ([miao@csm.astate.edu](mailto:miao@csm.astate.edu)), P.O. Box 70, Department of CS and Mathematics, State University, AR 72467. *Commutators on the Unit Ball of  $R^n$* .

We study commutators that are associated with a kernel function and a symbol function on the unit ball. The boundedness and compactness of the commutators can be characterized in terms of the size of the symbol function if the kernel function satisfies certain lower and upper bound conditions. A special case of such kernel is the reproducing kernel of the harmonic Bergman space of the unit ball. Therefore we can characterize the boundedness and compactness of Hankel operators on the harmonic Bergman space of the unit ball that have been recently studied. (Received October 02, 2000)