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kyesook Nam*, Department of Mathematical Sciences, Seoul National University, 1 Gwanrk-ro, Gwanak-Gu, seoul, 151-747, South Korea. *Characterizations of harmonic Bergman spaces.*

In this talk, we characterize the harmonic Bergman spaces by means of integrability conditions of double integrals associated with difference quotients of harmonic functions. The characterizations for the holomorphic case were divided into two parts caused by the critical case $p = n + \alpha + 1$ (here n is the *complex* dimension). We also give the characterization of the harmonic Bergman spaces for the critical case which is missing in the result for the holomorphic case.

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