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Pei-Ken Hung* (pkhung@math.columbia.edu). *Area bounds for minimal surfaces that pass through a prescribed point in a ball.*

Let Σ^k be a k -dimensional minimal submanifold in the n -dimensional unit ball B^n . If the distance from Σ to the origin is d , it is conjectured by Alexander, Hoffman and Osserman that the sharp area lower bound of Σ^k is $|B^k|(1 - d^2)^{k/2}$. We find a special vector field W and apply the first variational formula to prove the conjecture. This is a joint work with Simon Brendle. (Received August 24, 2017)