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**Young Hwan You\***, Indiana University East, 2325 Chester Blvd., Richmond, IN 47374. *The Necessary Condition For  $\bar{\partial}$ -equation in Hölder space in  $\mathbb{C}^3$ .*

Suppose that a smooth holomorphic curve  $V$  has order of contact  $\eta$  at a point  $z_0$  in the boundary of a pseudoconvex domain  $\Omega$  in  $\mathbb{C}^3$ . We show that the maximal gain in Hölder regularity for solutions of the  $\bar{\partial}$ -equation is at most  $\frac{1}{\eta}$ . The result improves works by Krantz and McNeal in this direction. (Received September 22, 2011)