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**Qi Zhang\*** (zhanqi@missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65203, and **M Chen**. *On a question of Demailly-Peternell-Schneider*.

In this talk, we shall present an affirmative answer to an open question posed by Demailly-Peternell-Schneider in 2001. Let  $f: X \rightarrow Y$  be a surjective morphism from a log canonical pair  $(X, D)$  onto a  $\mathbb{Q}$ -Gorenstein variety  $Y$ . If  $-(K_X + D)$  is nef, we show that  $-K_Y$  is pseudo-effective. This is a joint work with Meng Chen. (Received January 31, 2012)