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**Jing Zhang\*** ([zhangj@math.missouri.edu](mailto:zhangj@math.missouri.edu)), Department of Mathematics, University of Missouri, Columbia, MO 65211. *On threefolds without nonconstant regular functions.*

Let  $X$  be a smooth projective threefold. Remove a smooth irreducible projective surface  $D$  from  $X$  and let the open threefold  $Y = X - D$ . Suppose that  $Y$  satisfies  $H^i(Y, \Omega_Y^j) = 0$  for all  $j \geq 0$  and  $i > 0$ . When the  $D$ -dimension (i.e., Iitaka dimension) of  $X$  is 0 or 3, we discuss the properties of  $X$  and  $D$ . (Received August 23, 2005)