1041-14-131 Karl E. Schwede* (kschwede@umich.edu), Department of Mathematics, University of Michigan, 2074 East Hall 530 Church Street, Ann Arbor, MI 48109, and Sandor J. Kovacs and Karen E. Smith. Log canonical and Du Bois singularities.

I will discuss joint work with Sándor Kovács and Karen Smith on the conjecture of Kollár that log canonical singularities are Du Bois. In particular, I will present a new Kempf-like criterion for Du Bois singularities (in the normal case) and explain how it can be used to prove that Cohen-Macaulay log canonical singularities are Du Bois.

This result also can be generalized to show that (non-normal) Cohen-Macaulay semi-log canonical singularities are Du Bois. Several applications will also be discussed. (Received August 08, 2008)