1020-14-203 Manuel Blickle and Mircea Mustata^{*}, Department of Mathematics, University of Michigan, Ann Arbor, MI 48109, and Karen Smith. Invariants of singularities in positive characteristic. Preliminary report.

I will discuss some invariants of singularities defined in positive characteristic via the Frobenius morphism. They give analogues in this setting of the log canonical threshold and of the multiplier ideals in characteristic zero, but they can't be computed from a resolution of singularities (even when such a resolution exists). (Received August 28, 2006)