

1135-13-1902 **Rebecca R.G.*** (rirebhuh@syr.edu) and **Felipe Pérez**. *Test Ideals for all Characteristics*.

We define the test ideal of a general closure operation cl , and give some of its properties. We show that if the closure cl comes from a big Cohen-Macaulay module or algebra, or a family of such modules or algebras, then the test ideal shares many properties of the tight closure test ideal used in characteristic $p > 0$. In particular, it is connected to the singularities of the ring. We also apply our results to a mixed-characteristic closure operation based on work of Ma and Schwede. (Received September 25, 2017)