

1150-18-40

Janina C. Letz* (letz@math.utah.edu). *Smallness properties and locally complete intersections.*

A commutative noetherian ring is regular if and only if all complexes with finitely generated homology are small objects in the derived category. Similarly, a local ring is a complete intersection precisely when these complexes are proxy small. I will present some local to global principles for different smallness properties which extend this characterization to non-local rings. For some rings it is sufficient for a particular complex to be proxy small so that the ring is a locally complete intersection. (Received June 03, 2019)