1157-13-476 **Benjamin Briggs**, **Eloísa Grifo*** (eloisa.grifo@ucr.edu) and **Josh Pollitz**. *Towards a new characterization of complete intersections.* Preliminary report.

Regular local rings R can be characterized homologically by the property that every finitely generated R-module has finite projective dimension. This can be phrased in the language of derived categories: R is regular if and only if every complex with finitely generated homology is a perfect complex.

Recently, Pollitz established an analogous derived category characterization for complete intersections: R is a complete intersection if and only if each complex with finitely generated homology can build some perfect complex in the derived category using finitely many cones and retracts. We investigate whether there is a version of this result using only finitely generated modules, and whether there is a natural finitely generated module that witnesses the failure of R being a complete intersection, analogously to the role that the residue field plays in the characterization of regular rings. (Received February 03, 2020)