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Hannah Altmann* (haltmann@morris.umn.edu), **Eloisa Grifo**, **Srikanth Iyengar**, **Jonathan Montano**, **William Sanders** and **Thanh Vu**. *Perfect complexes over commutative rings*. Preliminary report.

Let R be a commutative ring. An R -complex F is *perfect* if it is quasiisomorphic to a bounded complex of finitely generated projective modules. A useful invariant associated to every perfect complex is its level. We can think of the level of F as the number of steps it takes to build F out of R . We will discuss finding bounds on the level of a perfect complex. In particular, we will show that the length of the largest gap in the homology of a complex F gives a lower bound for the level of F . (Received September 21, 2015)