1171-13-158   **Liana Şega*** (`segal@umkc.edu`). *Differential graded structures and minimal free resolutions modulo an exact zero-divisor.* Preliminary report.

Let Q be a local ring with maximal ideal $\mathfrak{n}$ and let $f, g \in \mathfrak{n} \setminus \mathfrak{n}^2$ with $fg = 0$. When M is a finite Q-module with $fM = 0$, we show that a minimal free resolution of M over Q has a differential graded module structure over the differential graded algebra $Q\langle y, z \mid \partial(y) = f, \partial(z) = gy \rangle$. In particular, when (f, g) is an exact pair of zero-divisors, this allows to give an explicit description of a minimal free resolution of M over $Q/(f)$ in terms of the one over Q, and we discuss some applications. (Received August 10, 2021)