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**Jonathan Block** (blockj@math.upenn.edu), **Julian Holstein** (jvsh2@cam.ac.uk) and **Zhaoting Wei\*** (zhaotwei@indiana.edu). *Twisted complexes and the homotopy limit of some cosimplicial dg-categories*. Preliminary report.

We give an explicit construction of the simplicial resolution of a dg-category and use it to show that the homotopy limits of some cosimplicial diagrams of dg-categories which arise in algebra and geometry are given by the so-called twisted complexes. In particular our construction works in the following two cases: (1) the complexes of sheaves on the Čech nerve of an open cover of a scheme; (2) the complexes of sheaves on the simplicial nerve of a group acting on a manifold. This result can be applied in the study of descent theory of dg-categories and equivariant dg-categories. (Received September 21, 2015)