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**Brooke Shipley\***, 508 Science and Engineering Offices (m/c 249), 851 S. Morgan Street, Chicago, IL 60607-7045, and **Kathryn Hess**. *The homotopy theory of coalgebras over a comonad.*

Let  $K$  be a comonad on a model category  $M$ . We provide conditions under which the associated category of  $K$ -coalgebras admits a model category structure such that the forgetful functor to  $M$  creates both cofibrations and weak equivalences. We will provide concrete examples that satisfy our conditions and are relevant in descent theory and in the theory of Hopf-Galois extensions in the differential graded context, and will also mention on-going work in pointed sets and spectra. (Received September 17, 2012)