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**Yumin Wang\*** ([yumin@math.wayne.edu](mailto:yumin@math.wayne.edu)), Department of Mathematics, Wayne State University, 1150 Faculty/Administration Bldg (FAB), Detroit, MI 48202. *Quantile Hedging for Guaranteed Minimum Death Benefits*. Preliminary report.

Quantile hedging for contingent claims is an active topic of research in mathematical finance. It play a role in incomplete markets, when perfect hedging is not possible. Guaranteed minimum death benefits (GMDBs) are present in many variable annuity contracts, and act as a form of portfolio insurance. They cannot be perfectly hedged due to the mortality component, except in the limit as the number of contracts becomes infinitely large. In this article, we apply ideas from finance to derive quantile hedges for these products under various assumptions. (Received September 15, 2009)