

# Energy decay for semilinear viscoelastic wave equations with delay feedback

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## Abstract

We analyze a class of semilinear wave type equations with viscoelastic damping and delay feedback with time variable coefficient. By combining semigroup arguments, careful energy estimates and an iterative approach we are able to prove, under suitable assumptions, a well-posedness result and an exponential decay estimate for solutions corresponding to small initial data.

Joint work with Alessandro Paolucci.