1099-35-309 **Benjamin H Harrop-Griffiths*** (benhg@math.berkeley.edu), Department of Mathematics, University of California, Berkeley, CA 94720. *Long time behaviour of solutions to the mKdV.*

We consider the long time behaviour of solutions to the modified Korteweg-de Vries equation on R. For sufficiently small, smooth, rapidly-decaying initial data we prove global existence and derive asymptotics without relying on the completely integrable structure. This problem was previously considered by Hayashi and Naumkin. Using a stationary phase argument similar to the work of Kato and Pusateri on the cubic NLS, we are able to provide a more straightforward proof in the case of the mKdV, and to handle certain short-range perturbations. (Received February 11, 2014)