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Hans Christianson* (hans@math.unc.edu), Department of Mathematics, UNC-Chapel Hill, CB#3250 Phillips Hall, Chapel Hill, NC 27599, and **Jared Wunsch**. *Local smoothing with a prescribed loss for the Schrodinger equation.*

Local smoothing estimates express that, on average in time and locally in space, solutions to the Schrödinger equation are more regular than the initial data. It is known that the presence of trapped geodesics forces a loss in the local smoothing effect, but not too many examples have been studied. In this work, we study some examples which fill in the gap between no loss and total loss in the smoothing effect. (Received January 17, 2011)