

Blow-up behavior for subconformal semilinear wave equations

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We consider the blow-up question for the semilinear wave equation with subconformal power nonlinearity. First, we give a full picture for blow-up in one space dimension: the blow-up rate, the blow-up profile and the regularity to the blow-up curve. A great difference exists between characteristic and non-characteristic points. Then, in higher dimensions, we prove some stability results related to the notion of non-characteristic points.