SPEAKER:

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TITLE:

Kink stability in weighted energy spaces

ABSTRACT:

We analyze the asymptotic stability of kink solutions to the sine-Gordon equation in weighted energy spaces. It is known that the obstruction to the asymptotic stability of kink solutionsis the existence of small breathers which is also closely related to the emergence of wobbling kinks. Our stability analysis gives a criterion for the weight which is sharp up to the endpoint so that the asymptotic stability holds. We will also compare our result with some other recent works. This is joint work with Gong Chen and Bingying Lu.