The lifespan estimate for 1D semilinear wave equations with spatial weights and compactly supported data

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Joint work with: K. Morisawa, H. Takamura

In this talk, I will discuss about initial value problems for semilinear wave equations with spatial weights in one space dimension. The lifespan estimates of classical solutions for compactly supported data are established in all the cases of polynomial weights. The results are classified into two cases according to the total integral of the initial speed.