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Yanqiu Guo* (s-yguo2@math.unl.edu), University of Nebraska-Lincoln, Department of Mathematics, 203 Avery Hall, Lincoln, NE 68588, and Mohammad A. Rammaha. Blow-up of Solutions to Systems of Nonlinear Wave Equations with Interior and Boundary Sources and Damping.

We study a system of coupled nonlinear wave equations which features two completing forces, one force is damping and the other is a strong source of super-critical order. In this talk, I will present a result on the blow-up of weak solutions in finite time, provided the initial energy is negative. (Received September 22, 2011)