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### Communications in Partial Differential Equations > Volume 35, 2010 - Issue 8

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## Decay Properties for the Damped Wave Equation with Space Dependent Potential and Absorbed Semilinear Term

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dependent ion on V(x) cay rates of em. In this  $_{c}$  (N,  $\alpha$ ): exponent olic problem, inear equation, thanks to the absorbed semilinear term. So we believe that  $\rho_c$  (N,  $\alpha$ ) is a critical exponent. Note that  $\rho_c$  (N,  $\alpha$ ) with  $\alpha = 0$  coincides to the Fujita exponent  $\rho_F(N) := 1 + \frac{2}{N}$ .

Keywords:

Absorbed	semilinea	ir term	Damped wave equation	Space dependent potential					
Mathematics Subject Classification:									
35L05	35L70	37L15							

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