

Haraux, A.

Two remarks on hyperbolic dissipative problems. (English) [Zbl 0579.35057](#)

Nonlinear partial differential equations and their applications, Coll. de France Semin., Vol. VII, Paris 1983-84, Res. Notes Math. 122, 161-179 (1985).

[For the entire collection see [Zbl 0559.00005](#).]

The author considers the semi-linear dissipative hyperbolic equation

$$u_{tt} - \Delta u + f(u) + g(u_t) = h(t, x) \quad \text{on } R_+ \times \Omega \quad \text{and} \quad u = 0 \quad \text{on } R_+ \times \partial\Omega.$$

He gives a simpler proof of the result of Americo-Prouse on boundedness of the energy of the solution u . In the second part one proves the uniform ultimate boundedness of the trajectories (improving a result of Babin- Vishik).

Reviewer: [N.H.Pavel](#)

MSC:

[35L70](#) Second-order nonlinear hyperbolic equations

[35B35](#) Stability in context of PDEs

Cited in **3** Reviews
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Keywords:

semi-linear dissipative hyperbolic equation; boundedness of the energy; ultimate boundedness of the trajectories