

18. Zvi Artstein and Ettore F. Infante, **On the asymptotic stability of oscillators with unbounded damping.** Quarterly Applied Mathematics 34 (1976), 195-199.

**Abstract.** Through a technique inspired by the invariance principle of LaSalle a general growth condition on the damping coefficient  $h(t)$  of the equation

$$\dot{x} + h(t)x + kx = 0, \quad h(t) \geq \varepsilon > 0,$$

is given which is sufficient for the global asymptotic stability of the origin yet permits this coefficient to grow to infinity with time. The methods used do not depend on linearity, and are applied to obtain similar results to the nonlinear analogue of this equation.

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