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Decay rates for the viscoelastic wave model

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We are concerned with the global existence as well as the asymptotic behavior of the viscoelastic wave equation in the past history framework. In the presence of a memory term, we establish the global existence of solutions and the uniform decay rates of those solutions. We quote the seminal works [1, 2], [3] and [4, 5].

References

- [1] L. E. Boltzmann, Zur Theorie der elastischen Nachwirkung, *Wien. Ber.* **70** (1874), 275–306.
- [2] L. E. Boltzmann, Zur Theorie der elastischen Nachwirkung, *Wien. Ber.* **5** (1878), 430–432.
- [3] C. M. Dafermos, Asymptotic stability in viscoelasticity, *Arch. Rational Mech. Anal.* **37** (1970), 297–308.
- [4] V. Volterra, Sur les équations intégro-différentielles et leurs applications, *Acta Math.* **35** (1912), 295–356.
- [5] V. Volterra, *Leçons sur les fonctions de lignes*, Gauthier-Villars, Paris, 1913.