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Boltzmann Model for Viscoelastic Particles

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Resumo

In this talk we investigate the long-time behavior of a system of viscoelastic particles modeled with the homogeneous Boltzmann equation and prove the existence of a universal Maxwellian intermediate asymptotic state with explicit rate of convergence towards it. Exponential lower pointwise bounds and propagation of regularity are also studied. These results can be seen as a generalization of several classical results holding for the pseudo-Maxwellian and constant normal restitution models.