

Numerical simulations of the Hébraud-Lequeux model

J.M. Amigó*, A. Giménez*, F. Morillas†, J. Valero*

* Centro de Investigación Operativa
Universidad Miguel Hernández, Avda. de la Universidad s/n, 03202 Elche, Spain

† Departament d'Economia Aplicada
Universitat de València, Facultat d'Economia, Campus dels Tarongers s/n, 46022 València, Spain

ABSTRACT

Hébraud-Lequeux (HL) model is a rheological model for the Couette flow of suspensions which describes the evolution of the density of probability $p(t, \sigma)$ to find (in a mesoscopic scale) a block of material in stress σ . We exhibit some numerical simulations of the solutions of the parabolic HL equation. In particular we study some aspect concerning stability of the solutions for HL equation. Furthermore, we pose some conjectures about stability, based on numerical evidence.

References

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