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## Modelling and simulation of shear rotation data in dense suspensions

The physics of dense suspensions of solid particles in viscous fluids presents interesting non-Newtonian effects across various deformation regimes, some more understood than others. While the crucial role of frictional contacts in determining shear thickening and shear jamming is well-understood, developing continuum models capable of accurately reproducing the complex rheology of these systems remains an active area of research.

Inspired by a recent experiment on transient effects under shear rotation [1], in this talk we formulate a tensorial model that includes transient elastic effects and anisotropic viscous dissipation induced by the microstructure evolution of the solid phase. Numerical simulations of experimental-like conditions, using a finite-element implementation, allow us to test the robustness of the model.

[1] Blanc et al. Phys. Rev. Lett. 130, 118202 (2023).