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Fabric variables in dense sheared suspensions

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The rheology of granular flows and dense suspensions can be described in terms of their effective shear and bulk viscosities as a function of packing fraction. Using stress partition and equivalence between frictional and viscous descriptions in the dense state, we show that the effective viscosities can be expressed in terms of the force-network anisotropy. This is supported by our extensive DEM-LBM simulations for a broad range of inertial and viscous parameters.