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Rheology and microstructure of non-colloidal suspensions under shear studied with Smoothed Particle Hydrodynamics

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## Highlights

- A three dimensional SPH model of non-colloidal suspensions is presented.
- The scheme avoids the use of small time steps for divergent lubrication forces.
- Rheology of the system is studied for volume fractions up to 0.5.
- Results are compared with available simulation and experimental data.
- Close agreement with the experiments is obtained for volume fractions up to 0.35.

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