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The effect of wall slip on the dynamics of a spherical particle in Newtonian and viscoelastic fluids subjected to shear and Poiseuille flows

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Highlights

- The effect of wall slip on particle dynamics in viscoelastic fluids is studied.
- Wall slip reduces the difference between particle and undisturbed fluid velocity.
- In shear and Poiseuille flow wall slip qualitatively changes migration dynamics.
- For high slip values all the particles migrate towards the channel centerline.

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