

# A COMPUTATIONAL STUDY OF THE INERTIAL LIFT ON A SPHERE IN A LINEAR SHEAR FLOW FIELD

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## **Abstract**

The shear induced inertial migration of a rigid sphere has been studied computationally by simulating the flow around a rigid sphere with a Fourier finite volume technique. The values of the lift force obtained by flow simulation have been compared with those predicted by asymptotic analyses for rotating and non-rotating spheres.

Key words : **inertia, lift, shear**