Particles in a Periodic Double Shear Flow - Verification & Validation

Author(s): Chiyu Jiang, Mohamed Houssem Kasbaoui, Dr. Donald L. Koch, Cornell University

Problem Specification

- 1. Pre-Analysis & Start-Up
- 2. Geometry
- 3. Mesh
- 4. Physics Setup
- 5. Numerical Solution
- 6. Numerical Results
- 7. Verification & Validation

Exercises Comments

Verification & Validation



Under Construction

Reference:

[1] Orr, W. M. The Stability or Instability of the Steady Motions of a Perfect Liquid and of a Viscous Liquid. Part I: A Perfect Liquid. *Proceedings of the Royal Irish Academy. Section A: Mathematical and Physical Sciences* **27**, 9–68 (1907).

[2] Squires, K. D. & Eaton, J. K. 1991 Preferential concentration of particles by turbulence. *Phys. Fluids* A 3, 1169–1178.

[3] Wang, L. P. & Maxey, M. R. 1993 Settling velocity and concentration distribution of heavy particles in homogeneous isotropic turbulence. *J. Fluid Mech.* 256, 27–68.

Acknowledgements:

We would like to thank Professor Donald L. Koch for his extraordinary support in this project.

This tutorial project is created under the NSF grant: NSF CBET-1233793.

Go to Exercises

Go to all FLUENT Learning Modules