Formulation of test cases

Test platform :

Parsytec Power GC-128 (MIMD) at TU Chemnitz-Zwickau

- \bullet node processors : Motorola PowerPC 601–80
- max. number of processors : 128
- node memory : 32 Mb
- OS : Parix 1.2–PPC
- Communication library : Power–PVM 1.1

Test case 1:

2–dimensional, downward directed channel flow

- * rectangular duct; $H/L = \frac{1}{6}$
- \star homogenous inlet conditions; $u_{F0} = -2 m/s$
- $\star u_{P0} = -2 \ m/s; \ v_{P0} = -0.4 \dots 0.4 \ m/s; \ d_P = 100 \dots 300 \ \mu m$

Test case 2 :

 $2\mathchar`-dimensional, axisymmetric, upward directed pipe flow around a full-cone nozzle$

- * $R/L = \frac{1}{6}$; location of the nozzle on the symmetry axis at $x = \frac{1}{3}L$; cone angle of 90°
- \star homogenous inlet conditions for the fluid with $u_{F0}=4~m/s$

$$\star v_{P,abs} = 8 \ m/s; \ d_P = 30 \dots 1400 \ \mu m$$

Parallel CFD '96 Comparison of Parallelization Methods for Lagrangian Calculations of Disperse Multiphase Flows Dr. Th. Frank, Technical University Chemnitz-Zwickau, Germany

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