ANNOUNCEMENT*

OPEN BOUNDARY CONDITION (OBC) MINISYMPOSIUM

In conjunction with the seventh International Conference on Numerical Methods in Laminar and Turbulent Flow that will be held at Stanford University (Palo Alto, California) on 15–19 July 1991, we are pleased to announce a one-day pre-conference minisymposium on OBCs for viscous incompressible (laminar) flow on 14 July. The purpose of the meeting is to compare numerical methods used at open boundaries and to find those that 'work best'. The comparisons/evaluations will be performed via four test problems, defined below, on two computational domains: one that is long enough so that most of the significant physics occurs therein and one that is intentionally too short (and obtained via simple truncation of the long one) so that any OBC is severely tested. The four problems are:

1. Backward Facing Step (BFS); steady isothermal flow.
2. Stratified BFS (SBFS); steady stably-stratified flow.
3. Vortex Shedding Past a Circular Cylinder (VS); unsteady isothermal flow.
4. Poiseuille–Benard Flow in a Channel (PB); unsteady forced plus natural convection.

The governing equations, domains, and BCs (except OBC, of course) are given below.

Prior to the meeting, we will publish 'benchmark solutions' to each of the four problems so that the contributors can see for themselves what the 'correct' answers are. These will be fine mesh calculations on *long* domains so that the OBCs are sufficiently far removed from the two test domains. The benchmark solutions will appear in the Journal in a forthcoming issue.

For further information, contact any one of us:

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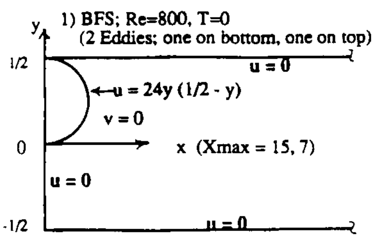
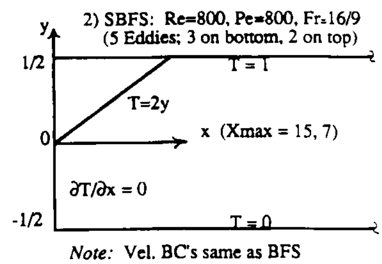
* This announcement both corrects and supersedes that given in Vol. 10, No. 8 (1990), pp. 952–953.





$$\frac{\partial \mathbf{u}}{\partial t} + \mathbf{u}\cdot\nabla\mathbf{u} = -\nabla P + Re^{-1}\nabla^2\mathbf{u} - Fr^{-1}\mathbf{k}T$$

$$\nabla\cdot\mathbf{u} = 0$$

$$\frac{\partial T}{\partial t} + \mathbf{u}\cdot\nabla T = Pe^{-1}\nabla^2 T$$

↑ k ↓ g