

1. General lectures

# Elementary aspects of vortex motion

Hidenori HASIMOTO

*Department of Mechanical Engineering, Hosei University, Koganei, Tokyo 184, Japan*

**Abstract.** Several aspects of vortex motion are considered, with a special stress on the present status of idealization, such as point vortices or vortex filament. As an introduction, elements of vortices induced by the transient flow past an obstacle are considered and their role and development are stated.

Following this introduction, a general survey of the issues in this symposium is made sketchily.

As an example, the motion of point vortices in the presence of an external flow or a boundary is discussed on the basis of the Hamiltonian formalism. The cases of linear flow and semicircular boundary are taken as examples of regular and chaotic motions. Secular behaviour of a pair of vortices in the flow is remarked.