Seminar Announcement

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A direct BEM solution to MHD pipe flow

Abstract

The magnetohydrodynamic (MHD) flow of an incompressible, viscous, electrically conducting fluid in a pipe under an externally applied magnetic field is investigated. The flow through the pipe is driven by the current produced by a pressure gradient. A direct boundary element method (BEM) solution is obtained by using a fundamental solution which enables to treat the magnetohydrodynamic flow equations in their original coupled form with general wall conductivities. The method is applied to several test problems with different geometries and the results are presented in terms of equivelocity and induced magnetic field contours.

DATE: April 15, 2015
TIME: 15:40
PLACE: FEF 404 (Seminar Room)

All interested people are cordially invited.
After the seminar, some cookies and soft drinks will be served.