

# 國家理論科學研究中心學術演講

## NCTS/NCU Seminar on Scientific Computing

主講人：謝博文 教授 (國立中興大學應用數學系)

題目：On an MHD duct flow problem

時間：2016年11月07日(星期一) 10:00 ~11:30

地點：國立中央大學鴻經館M107

### Abstract:

Magnetohydrodynamics (MHD) is the study of dynamics of electrically conducting fluids interacting with electromagnetic fields. Basically, the MHD equations can be obtained by coupling the incompressible Navier-Stokes equations for conducting fluid with Maxwell's equations for electromagnetic field through Ohm's law. In this talk, we will consider the steady incompressible MHD flowing through pipes under a transverse electromagnetic field. We will show that under some assumptions, the problem can be reduced to a strongly coupled system of singularly perturbed convection-diffusion equations.

Organizer: 楊肅煜 教授 (國立中央大學數學系)

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