國家理論科學研究中心學術演講

NCTS/NCU Seminar on Scientific Computing

主講人：游承書博士 **(**國立中央大學數學系**)**

題目：**An overview of projection methods for viscous incompressible flows (I)**

時間：**2017**年**02**月**20**日**(**星期一**) 10:00 ~12:00**

地點：國立中央大學鴻經館**M107**

Abstract:

The underlying idea of projection method for solving viscous incompressible flow problems was first introduced independently by Chorin and Temam around 1968. This approach is based on applying the Helmholtz-Hodge decomposition to the incompressible Navier-Stokes equations. The most attractive feature of projection method is that one only needs to solve a sequence of decoupled elliptic equations for the velocity and the pressure at each time step. Therefore, it is very efficient for large scale numerical simulations. In this talk, we will give a brief review of the projection methods, especially focus on the pressure-correction schemes.

Reference:

J. L. Guermond, P. Minev, and J. Shen, An overview of projection methods for incompressible flows, *Computer Methods in Applied Mechanics and Engineering,* 195 (2006), pp. 6011-6045.

Organizer: 楊肅煜 教授 **(**國立中央大學數學系**)**

電話：**(03)4227151**轉**65130, E-mail: syyang@math.ncu.edu.tw**

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