國立中山大學應用數學系
學術演講

講　者：Professor Todd Arbogast
　　　　Institute for Computational Engineering and Sciences, University of Texas, USA

講　題：Mixed Methods for Two-Phase Darcy-Stokes Mixtures of Partially Melted Materials with Regions of Zero Porosity

時　間：2017/06/15（星期四）15：30～16：30

地　點：理學院四樓理 SC 4009-1 室

茶　會：15:00 於理 SC 4010 室（系辦公室）

摘要

The Earth's mantle, or an ice sheet, involves a deformable solid matrix phase within which a second phase, a fluid, may form due to melting processes. The mechanics of this system is modeled as a dual-continuum, with at each point of space the solid matrix being governed by a Stokes system and the fluid melt, if it exists, being governed by a Darcy law. This system is mathematically degenerate when the porosity (volume fraction of fluid) vanishes. We develop the variational framework needed for accurate approximation of this Darcy-Stokes system, even when there are regions of positive measure where only one phase exists. We then develop an accurate mixed finite element method for solving the system and show some numerical results.

中山大學應用數學系

敬 請 公 告！ 歡 迎 參 加！

應用數學系：http://math.nsysu.edu.tw

校園地圖：http://math.nsysu.edu.tw/ezfiles/87/1087/img/779/NSYSUMAPmath990705.jpg

交通資訊：http://www.nsysu.edu.tw/files/90-1000-7.php?Lang=zh-tw

應用數學系　　　　　　　校園地圖　　　　　　　交通資訊