

國立中山大學跨領域及數據科學研究中心
國立中山大學應用數學系
學術演講

講者：鄧君豪教授

國立中興大學應用數學系

講題：Spectral Collocation Methods for Maxwell's
Equations

時間：2015/10/29（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

In this talk we present a computational approach for electromagnetic wave simulations based on Maxwell's equations. We will first show an energy estimate analysis for the Maxwell equations, to identify energy bounded boundary operator such that the governing equations have a bounded energy at any given time. We then illustrate the relationships between the boundary operators and the commonly used physical boundary conditions. In the second part of talk we will illustrate how these theoretical results can be employed to construct a stable collocation scheme which has a discrete energy estimate mimicking the continuous one shown in the PDE level analysis. Numerical results will be provided to illustrate the convergence and performances of the scheme. At last we give some concluding remarks.

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