

# 國立交通大學應用數學系

## 學術演講公告

主講人：王振男 教授（台灣大學 數學系）

講 題：Elliptic equations with complex coefficients: quantitative uniqueness estimates and size estimate

時 間：108 年 5 月 21 日(星期二) 下午 14:00 – 15:00

地 點：(光復校區) 科學一館 223 室

茶 會：當天下午 1:30 (科學一館 205 室)

### Abstract

Second order elliptic equations with complex coefficients arise from some well-known physical models such as the biological tissues or the electromagnetic waves propagating in a conductive medium. In this talk, I would like to discuss several topics about this type of equations. I will first talk about the unique continuation property for solutions of the complex second order elliptic equation. With the application to the size estimate problem in mind, the aim is to derive some quantitative uniqueness estimates of solutions. Besides of the quantitative uniqueness estimates, we also need certain energy inequalities for solutions. Unlike the real second order elliptic equation, the energy inequalities we have in mind do not hold for solutions of the complex conductivity equation. Here we will propose a physical model in which the energy inequalities hold. We then study the size estimate problem for this model.

敬請公告 歡迎參加

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