

# 國立陽明交通大學應用數學系

## 學術演講公告

主講人：Prof. Bastian von Harrach (Goethe University Frankfurt)  
講題：Inverse Problems in Partial Differential Equations  
時間：112年5月16日(星期二) 下午 2:00 –3:00  
地點：(光復校區) 科學一館 223 室

### Abstract

Several novel noninvasive imaging methods lead to the problem of determining the coefficient in a partial differential equation (PDE) from (partial) knowledge of its solutions. A prominent example is the emerging technique of electrical impedance tomography (EIT), where electrical currents are driven through a patient to image its interior, which leads to the famous mathematical Calderón problem.

In our talk, we will describe recent mathematical advances on inverse problems for elliptic PDEs. Specifically, we show how to overcome the problem of non-linearity by using monotonicity relations and the concept of localized potentials. We also point out a new connection to semidefinite convex optimization that may yield globally convergent reconstruction algorithms.

敬請公告 歡迎參加

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