

國立陽明交通大學應用數學系

學術演講公告

主講人：Prof. Daiuske Kawagoe 川越大輔 (Kyoto University)
講題：On strong convergence of an elliptic regularization with the
Neumann boundary condition applied to a boundary
value problem of a stationary advection equation
時間：111 年 9 月 20 日(星期二) 下午 2:00 – 3:00
地點：(光復校區) 科學一館 223 室

Abstract

We consider a boundary value problem of a stationary advection equation with the homogeneous inflow boundary condition in a bounded domain with Lipschitz boundary, and consider its perturbation with respect to the Laplacian with a small positive parameter $\|\epsilon\|$. In this talk we show L^2 strong convergence of the perturbed solutions to the original solution in the domain and on a part of the boundary as the parameter $\|\epsilon\|$ tends to 0, and discuss its convergence rates assuming that the original solution has H^1 or H^2 regularity. A key observation is that the convergence rate depends not only on the regularity of the original solution but also on a relation between the boundary and the advection vector field. This talk is based on a joint work with Masaki Imagawa.

敬請公告 歡迎參加

應用數學系 啟