

# FLUX RECOVERY AND SUPERCONVERGENCE OF QUADRATIC IMMERSSED INTERFACE FINITE ELEMENTS



主講人: Prof. So-Hsiang Chou (周所向 教授)

Department of Mathematics and Statistics

Bowling Green State University

時間: 6月15日(三)下午 1:30-2:30

地點: 科學一館 SA223

---

Abstract. We introduce a flux recovery scheme for the computed solution of a quadratic immersed finite element method. In the case of piecewise constant diffusion coefficient, we show that the end nodes are superconvergence points for both the primary variable  $p$  and its flux  $u$ . Furthermore, in the case of piecewise constant diffusion coefficient without the absorption term the errors at end nodes and interface point in the approximation of  $u$  and  $p$  are zero. In the general case, flux error at end nodes and interface point is third order.