

2013년 2학기

# 수학전공 Colloquium

◆ **제 목 :** **The immersed boundary method and its application**

◆ **연 사 :** **김영삼(중앙대)**

◆ **초 록 :** The immersed boundary (IB) method is a generally useful computational method for problems in which elastic materials interact with a viscous incompressible fluid. In this talk, I introduce two extensions of the IB method. The first one, which is called the penalty IB method, is introduced to take into account both the inertial and gravitational effects of the elastic materials with mass. The example problems include vortex induced vibration, 3D parachute, Rayleigh Taylor instability and its dynamic stabilization. The second extension is to deal with the case in which the immersed boundary is a porous material through which the surrounding fluid passes. As the application examples of the present method, we will show the simulation results on 2D parachute, 2D and 3D dry foam dynamics.

◆ **일 시 :** **10월 31일(목) 오후 5시**

◆ **장 소 :** **5서253**