Title: Classical Bernoulli Type Free Boundary Problems

Abstract: Free boundary problems deal with solving partial differential equations (PDEs) in a domain, a part of whose boundary is prior unknown; that portion of the boundary is called a free boundary. Free boundary problems are widely used in various applications. Bernoulli free boundary problem, the Stefan Problem, and the Obstacle Problems are some notable free boundary problems. In this talk, we will discuss some examples of the free boundary problems, its geometrical aspect, and the Bernoulli type free boundary problem for divergence form elliptic operator.