Partial Differential Equations Seminar

Title Optimal regularity for mixed boundary value problems

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Location Zoom 강연

Abstract

As is well known, solutions to purely Dirichlet/conormal boundary value problems are smooth when coefficients, data, and boundaries of domains are smooth. However, for mixed Dirichlet-conormal boundary value problems, such a regularity result does not hold near the separation. In this talk, I will present recent results on optimal regularity of the mixed problems for both elliptic and parabolic operators with homogeneous boundary condition, which is joint work with Hongjie Dong (Brown) and Zongyuan Li (Rutgers). I will also introduce a result by the collaborators on non-tangential maximal function estimates of the mixed problem for Laplace operator with inhomogeneous boundary condition.