

Title : *“Counting nodal domains of eigenfunctions in non-smooth setting”*

Abstract

The Courant nodal domain theorem states that k -th Laplacian eigenfunction with Dirichlet boundary condition has at most k nodal domains. This fact admits a well known asymptotic version due to Pleijel, which in particular says that this estimate is strict for all but a finite number of eigenfunctions. We extend this result to Neumann Laplacian eigenfunctions on domains with low boundary regularity and allowing the ambient space to be a possibly singular metric space having Ricci curvature bounded below. Based on a joint work with Nicolò De Ponti and Sara Farinelli.