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Titchmarsh–Weyl theory for elliptic differential operators

Abstract. In this talk elliptic differential operators of the form

$$\mathcal{L} = - \sum_{j,k=1}^n \partial_j a_{jk} \partial_k + \sum_{j=1}^n (a_j \partial_j - \partial_j \bar{a}_j) + a$$

with variable coefficients on \mathbb{R}^n and on Lipschitz domains $\Omega \subset \mathbb{R}^n$ are considered. We discuss spectral properties of selfadjoint realizations of \mathcal{L} and its connection to corresponding Titchmarsh–Weyl functions / Dirichlet-to-Neumann maps.