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The Dirichlet-to-Neumann map, the boundary Laplacian and an unpublished paper of Hörmander

In late 1950s, Lars Hörmander wrote a paper on the connection between the Dirichlet-to-Neumann map and the boundary Laplacian. The manuscript has not been published until two years ago. Interestingly enough, it contains the main ideas needed to deduce the inequalities between the Steklov and Laplace eigenvalues, obtained in a series of recent articles starting with the work of Provenzano-Stubbe. We discuss the Hörmander's approach as well as some related results, in particular, on the asymptotics of Steklov eigenvalues for non-smooth domains. The talk is based on a joint work in progress with A. Girouard, M. Karpukhin and M. Levitin.