

Unique continuation and Carleman estimates for linear PDE

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The analysis of ill-posed Cauchy problems for linear partial differential equations is of great importance for many applied problems, for example inverse problems and control problems. The local version of the ill-posed Cauchy problem is referred to as the problem of unique continuation. Concerning this problem, the most important results of the 20th century, starting with Holmgren's uniqueness theorem, continuing with the works by Carleman and Hörmander, and concluding with Tataru's results from 1996 and 1999, will be discussed.