

## **Singularities of Klein-Gordon solutions on anti-de Sitter spacetimes**

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An essential tool for studying non-smooth solutions of non-elliptic PDEs are propagation of singularities theorems. In this talk I will explain how singular solutions arise in the context of Quantum Field Theory, and I will outline the particular difficulties present on anti-de Sitter spacetimes. I will then present a new propagation of singularities result that generalizes Vasy's theorem, valid originally for Dirichlet boundary conditions. The main ingredient is microlocal analysis in spaces based on the twisted Sobolev spaces introduced in the present context by Warnick. This is joint work with Oran Ganot (Northwestern University).