

# Causality and Boundary of wave solutions

JOSÉ L. FLORES

(BASED ON TWO PAPERS WRITTEN IN COLLABORATION WITH M. SÁNCHEZ)

University of Málaga

floresj@agt.cie.uma.es

## Abstract

In this talk we will describe some relevant global aspects of the causal structure of wave type spacetimes. First, we will analyze the level occupied by these spacetimes in the causal ladder, showing that it depends critically on the quadratic growth of a metric coefficient. Next, we will construct the causal boundary for these spacetimes. We will show that the boundary also suffers from the same critical behavior, presenting a remarkable low dimensionality just for the quadratic growth. We will finish this talk by discussing these properties and analyzing the relationship between them.