

Joint Seminar: "Geometry@IMAR" & "Geometry&Physics@DFT" (IFIN-HH)
([Geometry&Physics Homepage](#))

Date: Wednesday, May 17, 2023, 10:00 AM

Location: IMAR, room 307, 3rd floor, 21 Calea Grivitei Street, 010702 Bucharest

Speaker: **Prof. Claude Warnick** (Cambridge University)

Title: **Singular limits of hyperbolic PDE and Effective Field Theories**

Abstract: Often in a physical problem there are some degrees of freedom that we treat as unobservable because the energy required to excite them is much greater than the energy scale of the problem. These unobservable degrees of freedom can still affect the physics that we do observe at subleading order. A tool that is often used by physicists to study this is the machinery of effective field theory (EFT). An EFT is a formal expansion in some small parameter, raising important questions about how one should 'solve' such an expansion and whether (and in what sense) the solutions approximate the underlying problem. In this talk I will discuss a paper with Harvey Reall in which we studied an EFT for a model PDE and explained how to address the questions that can arise.