"The Trans-Carpathian Seminar on Geometry & Physics"

(See also the Geometry & Physics @ DFT seminar homepage)

Date: Wednesday, May 22, 2024, 15:15 Bucharest time

Location: online via Zoom (Join Zoom Meeting)

Speaker: **Prof. Maciej Dunajski** (University of Cambridge)

Title: **Quasi-Einstein metrics**

Abstract: We prove that the intrinsic Riemannian geometry of compact cross-sections of any Einstein extremal horizon must admit a Killing vector field. This establishes the rigidity theorem for the extremal Kerr black hole horizon. This extremal horizon is a special case of a quasi-Einstein structure. We shall discuss other examples of quasi-Einstein structures on compact surfaces, including a global result relevant in projective metrizability.