



# ***EINLADUNG***

im Rahmen Literaturseminars

zum Vortrag

von

**James Lucietti**

(Edinburgh)

über

*„Rigidity of extremal horizons and black hole uniqueness“*

**Abstract:**

I will present a recent proof which shows that the intrinsic geometry of compact cross-sections of any vacuum extremal horizon, possibly with a cosmological constant, must admit a Killing vector field.

In particular, this implies that the extremal Kerr horizon is the most general such horizon in four-dimensional General Relativity and completes the classification of the associated near-horizon geometries.

I will also discuss a recent uniqueness proof which shows that any analytic Einstein spacetime, that contains a static extremal horizon with a maximally symmetric compact cross-section, is the extremal Schwarzschild de Sitter spacetime or its near-horizon geometry.

**Ort: Seminarraum A, Währinger Straße 17, 2. Stock**

**Zeit: Mittwoch, 22.11.2023, 14.15 h - Seminarraum A, Währinger Straße 17, 2. Stock**

<https://univienne.zoom.us/j/6540036841?pwd=SytyVkZJZzNyRG9lMm13ejlHeHRRUT09>

gez.: P. Chrusciel, D. Fajman