



universität
wien

Fakultät für Mathematik

Mathematisches Kolloquium

Mittwoch, 29. Jänner 2020

Sky Lounge

EINLADUNG

Mihalis Dafermos

(U Cambridge)

„Strong Cosmic Censorship versus Λ “

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Abstract:

The strong cosmic censorship conjecture is a fundamental open problem in classical general relativity, first put forth by Roger Penrose in the early 70s. This is essentially the question of whether general relativity is a deterministic theory. Perhaps the most exciting arena where the validity of the conjecture is challenged is the interior of rotating black holes, and there has been a lot of work in the past 50 years in identifying mechanisms ensuring that at least some formulation of the conjecture be true. It turns out that when a nonzero cosmological constant Λ is added to the Einstein equations, these underlying mechanisms change in an unexpected way, and the validity of the conjecture depends on a detailed understanding of subtle aspects of black hole scattering theory, surprisingly involving, in the case of negative Λ , some number theory. Does strong cosmic censorship survive the challenge of non-zero Λ ? This talk will try to address this question!

15.45 Uhr: Kaffeejause

16.15 Uhr: Vortrag

vinum cum pane im Anschluss

Roland Donniger
Christian Krattenthaler