EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Mathematisch-
Naturwissenschaftliche
Fakultät

Fachbereich Mathematik

AB Geometrische Analysis,
Differentialgeometrie und
Relativitätstheorie

Sommersemester 2020

Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den **28.05.2020** spricht um **14 Uhr c. t.** per Videoübertragung

Dr. Alexander Friedrich
(University of Copenhagen)

über das Thema

The Hawking Energy on Small Scales - Expansion and Concentration Points

The Hawking energy is a quasi local energy in General Relativity. The idea is to obtain a measure for the energy contained within a given volume by measuring the bending of light rays across its boundary. We work in a time slice and regard the Hawking energy as a generalized Willmore functional on spherical surfaces subject to an area constraint. The goal is to analyze the behavior of critical surfaces with small area and identify points in the ambient manifold around which they concentrate. Additionally, we obtain an expansion of the Hawking energy on small spheres. These two results allow us to identify a kind of energy density for the Hawking energy. All of the results presented hold for generic generalized Willmore functionals as well.

Hierzu wird herzlich eingeladen. Bei Interesse bitte per E-Mail an angelika.spoerer-schmidle@uni-tuebingen.de anmelden, um den Link zur Videoübertragung zu erhalten.

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