



Sommersemester 2020

**Oberseminar**  
**Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Mittwoch, den 10.06.2020 spricht um 14 Uhr c. t. per Videoübertragung

**Dr. Eric Ling**  
(KTH Stockholm)

über das Thema

**Spacetime Extensions of the Big Bang**

In this talk we show that a large class of  $k = -1$  inflationary FLRW spacetimes dubbed 'Milne-like' admit continuous spacetime extensions through the big bang. For these spacetimes the big bang is a coordinate singularity analogous to how the  $r = 2m$  event horizon in Schwarzschild is a coordinate singularity. The geometry of the big bang coordinate singularity for Milne-like spacetimes is that of a lightcone in a spacetime conformal to Minkowski space where Lorentz invariance holds at the origin. We discuss how the mathematics of these spacetimes may help provide connections to certain problems in cosmology.

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

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