



Wintersemester 2016/17

**Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den **02.02.2017** spricht um **16 Uhr c. t.** im Raum N16

Sophia Jahns
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über das Thema

Trapped Light in Stationary Spacetimes

Light can circle a massive object (like a black hole or a neutron star) at a “fixed distance”, or, more generally, circle the object without falling in or escaping to infinity. This phenomenon is called trapping of light and well understood in static, asymptotically flat (AF) spacetimes. If we drop the requirement of staticity, similar behavior of light is known, but there is no definiton of trapping available. We present some known results about trapping of light in static AF spacetimes. Using the Kerr spacetime as a model, we then show how trapping can be better understood in the framework of phase space and work towards a definition for photon regions in stationary AF spacetimes.

Hierzu wird herzlich eingeladen.

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