



Wintersemester 2017/18

**Oberseminar  
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den **02.11.2017** spricht um **14 Uhr c. t.** im Raum S9

**Penelope Gehring**

über das Thema

**The Isoperimetric Inequality: Proofs by convex and differential  
geometry**

The Isoperimetric Inequality has many different proofs using methods from diverse mathematical fields. In the talk two methods to prove this inequality will be shown. First the 2-dimensional case will be proven by tools of elementary differential geometry and Fourier analysis. Afterwards the theory of convex geometry will briefly be introduced and will be used to prove the Brunn–Minkowsky-Inequality. Using this inequality, the Isoperimetric Inequality in  $n$  dimensions will be shown.

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken