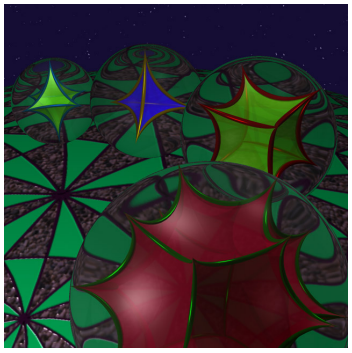
Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Seminar room, Math II (Lonza)
Wednesday May 22, 2019, 10:20-12:00



Léo Brunswic (ENS Lyon)

Geometric structures almost everywhere

Geometric spaces with singularities are very common objects. The first type of singularities coming to mind are conical singularities in Euclidean, spherical or hyperbolic surfaces. In these situations, the metric space structure is well defined everywhere and gives a nice background on which one can put a geometrical structure on the complement of the conical singularities. Furthermore, curvature can be described in metric sense and the properties of conical singularities can thus be described metrically. These features are absent in the Lorentzian context thus the almost everywhere geometrical structure is less obvious. To assess this difficulty, we define almost everywhere geometric structures and sketch poofs of fundamental results. Applications to singular flat spacetimes are given.