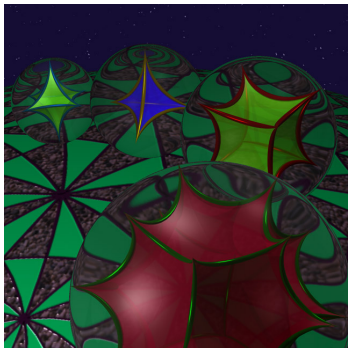
Oberseminar Geometrie - Special talk
Department of Mathematics
University of Fribourg
Seminar room, Math II (Lonza)
Wednesday October 16, 2019, 10:20



Naomi Bredon (Bordeaux)

Trees and buildings of finite dimensional vector spaces over non locally compact local fields

Let K be a non locally compact valued field. In this paper we construct a tree Γ whose vertex set consists of equivalence classes of lattices of a two-dimensional K-vector space. We construct the boundary $\partial\Gamma$ made of ends of the tree and we com- pactify Γ by adjoining $\partial\Gamma$. We will generalize this construction with a d-dimensional vector space V and construct an affine building made of homothety classes of adaptable ultrametric norms on V. We construct its compactification by adding homothety classes of seminorms on V.