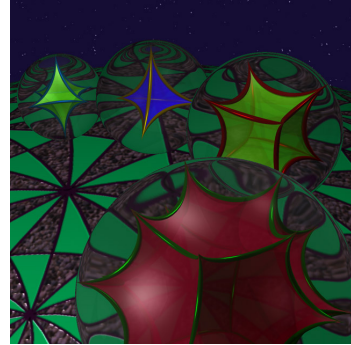


**Oberseminar Geometrie**  
Department of Mathematics  
University of Fribourg  
Seminar room, Math II (Lonza)  
**Wednesday March 7, 2018, 10:20-12:00**



THIBAUT DUMONT (Jyväskylä)

### **Growth of the volume cocycle in Euclidean buildings**

Euclidean buildings are the analogue of symmetric spaces for  $p$ -adic Lie groups. For example, the  $(p + 1)$ -regular tree is the rank one buildings attached to  $SL_2$  over the field of  $p$ -adic number. These buildings are  $CAT(0)$  spaces and come with a natural boundary at infinity and horospherical coordinates. B. Klingler used the latter to introduce a notion of volume. It is an open problem to determine the growth of this volume cocycle related to the cohomology of  $p$ -adic Lie groups. The detailed case of a regular tree has been solved and will be given in parallel.