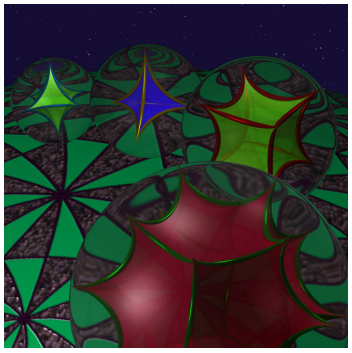
Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Seminar room, Math II (Lonza)
Wednesday December 5, 2018, 10:20-12:00



László Márton Tóth (Alfréd Rényi Institute & EPFL)

Graph convergence and cost theory

The cost of probability measure preserving (p.m.p.) equivalence relations is an important invariant in the orbit equivalence theory of measurable group actions. Cost theory became an active field of research when Gaboriau was able to show that any free action of the free group F_n has cost n (2000). In particular, free actions of different free groups can not be orbit equivalent.

Combinatorial cost for sequences of finite graphs was introduced by Elek in 2006 as an analogue of cost. We connect the two theories through graph convergence. More precisely, we show that if a graph sequence is local-global convergent, then its combinatorial cost equals the cost of the limit graphing. We also explain the connection with the rank gradient of sequences of subgroups.

The talk is aimed to be self-contained, all notions will be properly introduced. Joint work with Miklós Abért, parallel independent work on this topic was done by Carderi, Gaboriau, and de la Salle.