

# BIG SUBSETS WITH SMALL BOUNDARIES IN A GRAPH WITH A VERTEX-TRANSITIVE GROUP OF AUTOMORPHISMS

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The theory of ends of finitely generated groups  $G$  and connected locally finite graphs  $\Gamma$  with vertex-transitive groups of automorphisms can be regarded as a theory of the Boolean algebras of subsets of  $G$  or the vertex set of  $\Gamma$  with finite boundaries (in locally finite Cayley graphs of  $G$  or in  $\Gamma$ ), considered modulo finite subsets. We develop a more general approach towards 'ends', replacing infinite subsets with finite boundaries by certain 'big' subsets with 'small' boundaries. This is a joint work with N. Seifert.

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