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**Title:** Finite von Neumann algebras associated to groups with positive first  $\ell^2$ -Betti number.

**Abstract:** Given a countable discrete group  $\Gamma$  with positive first  $\ell^2$ -Betti number, one can produce a large number of closable derivations from  $L\Gamma$  to the Hilbert-Schmidt operators on  $\ell^2\Gamma$ . Through the analysis of these derivations we will show how a number of “free entropy dimension type” structural results for  $L\Gamma$  can be obtained, e.g. primeness, etc.