# Vertex numbers of simplicial complexes with free abelian fundamental group 

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Seminar za geometrijsko topologijo, 20.12.2023 in 3.1.2024

I will present the paper "Vertex numbers of simplicial complexes with free abelian fundamental group" by Florian Frick and Matt Superdock, in which they show that the number of vertices needed to construct a simplicial complex with fundamental group $\mathbb{Z}^{n}$ is bounded between $c \cdot n^{3 / 4}$ and $C \cdot n$ for some absolute constants $c, C>0$.

