

GENUS BOUNDS IN RIGHT-ANGLED ARTIN GROUPS

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Abstract: We show that, in any right-angled Artin group whose defining graph has chromatic number k , every non-trivial element has stable commutator length at least $1/(6k)$. Secondly, if the defining graph does not contain triangles, then every non-trivial element has stable commutator length at least $1/20$. These results are obtained via an elementary geometric argument based on earlier work of Culler.

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Key words: stable commutator length, right-angled Artin groups, non-overlapping property.