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Finiteness of finitely generated Kleinian groups

(Ahlfors finiteness theorem) Let Γ be a non-elementary finitely generated Kleinian group. Then

$$\Gamma \backslash \Omega(\Gamma)$$

is a finite union of Riemann surfaces of finite type.

- By [Selberg's lemma](#) we may assume Γ is torsion free and finitely generated. Then $\Gamma \backslash \Omega(\Gamma)$ is a disjoint union of Riemann surfaces with universal cover $H^2_{\mathbb{C}}$.
 - ...

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