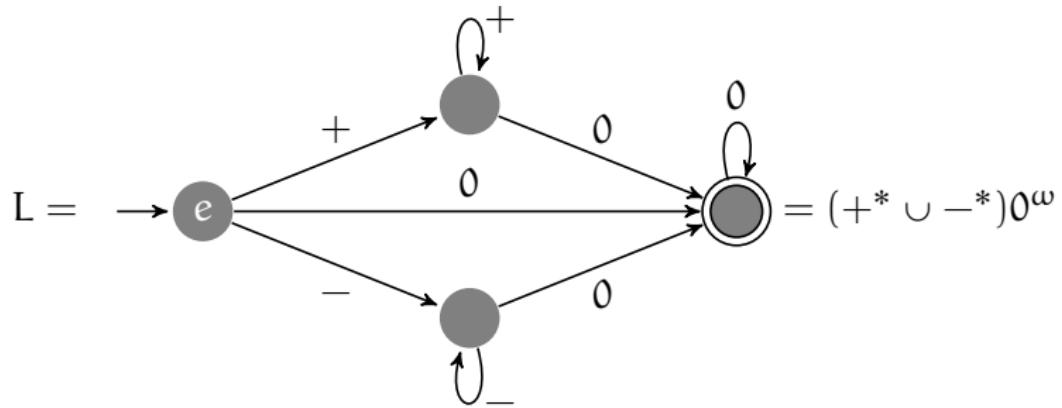


Automatic actions

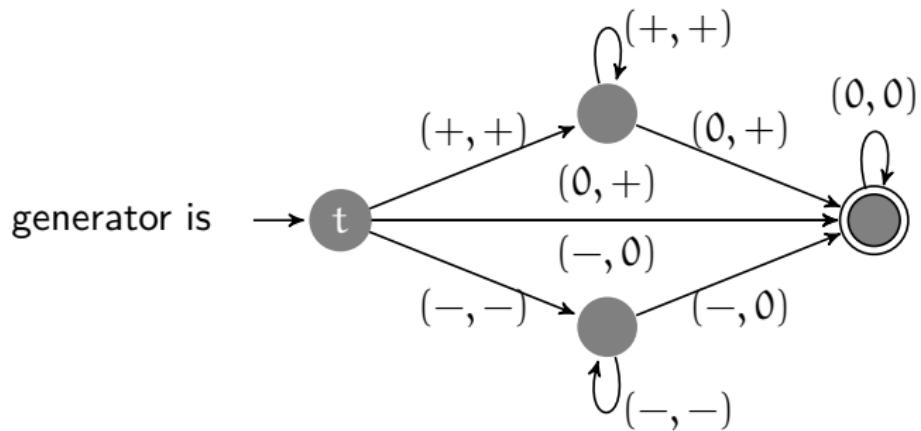
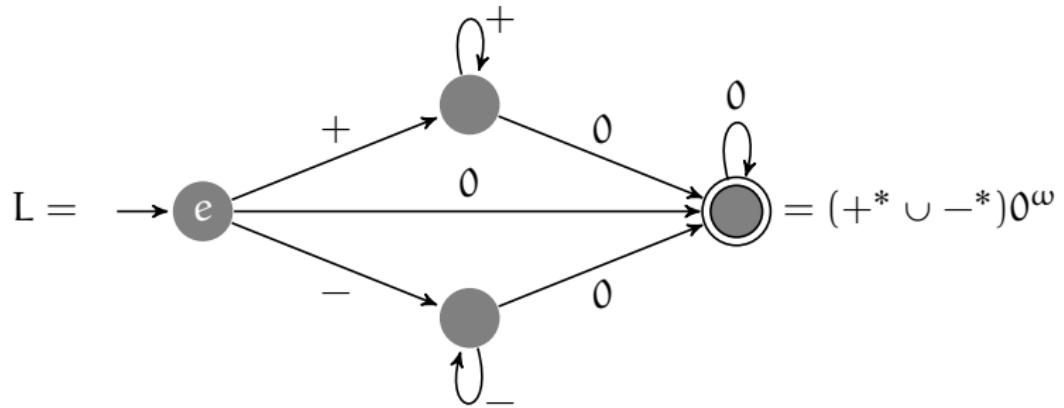
Laurent Bartholdi

February 5th, 2024

Automatic groups $\mathbb{Z} = \langle t \rangle$



Automatic groups $\mathbb{Z} = \langle t \rangle$

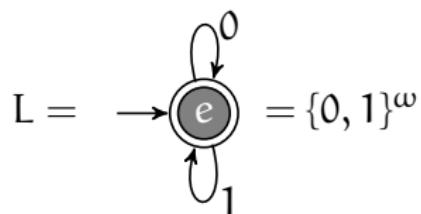


Automatic groups

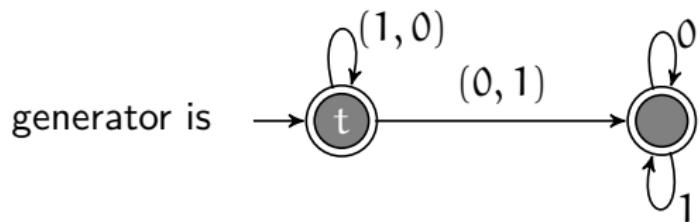
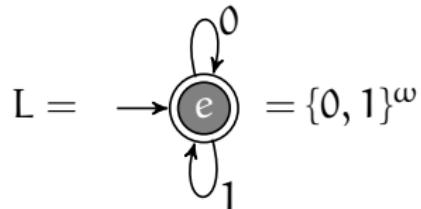
$$L = (x^* \cup X^*)(y^* \cup Y^*)e^\omega$$

generator x is $(X, e) \cdots \cup (x, x)^*(y, x)(y, y)^*(e, y)(e, e)^\omega \cup \cdots$

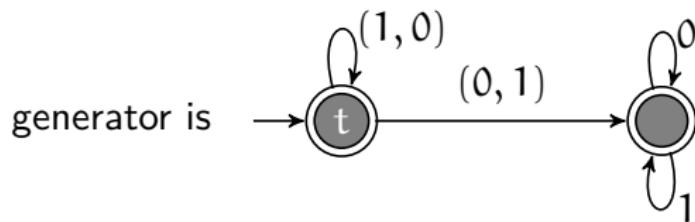
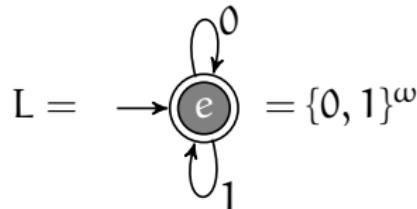
Automata groups | The adding machine $\mathbb{Z} = \langle t \rangle$



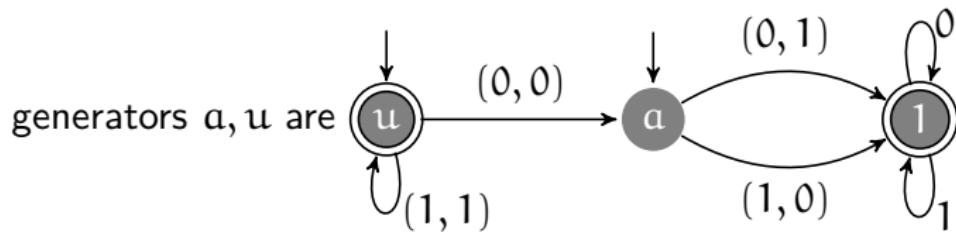
Automata groups | The adding machine $\mathbb{Z} = \langle t \rangle$



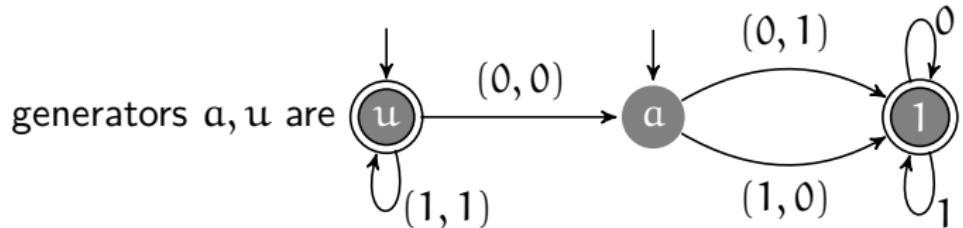
Automata groups | The adding machine $\mathbb{Z} = \langle t \rangle$



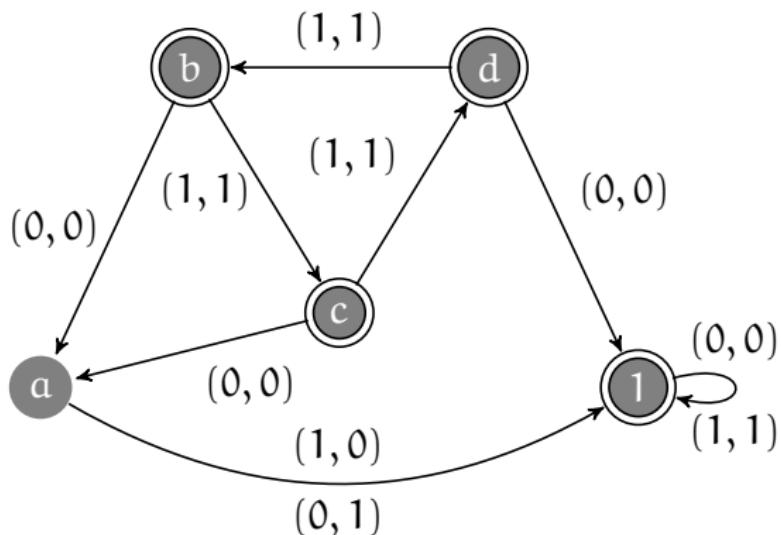
Gray code, $D_\infty = \langle a, u \rangle$



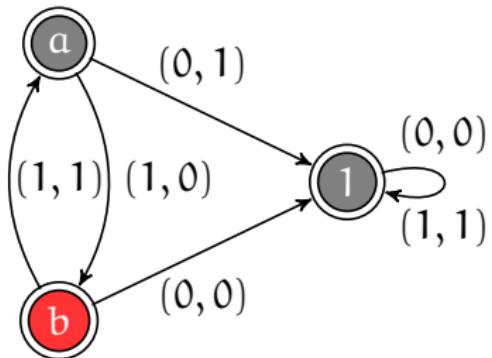
Automata groups | The adding machine $\mathbb{Z} = \langle t \rangle$



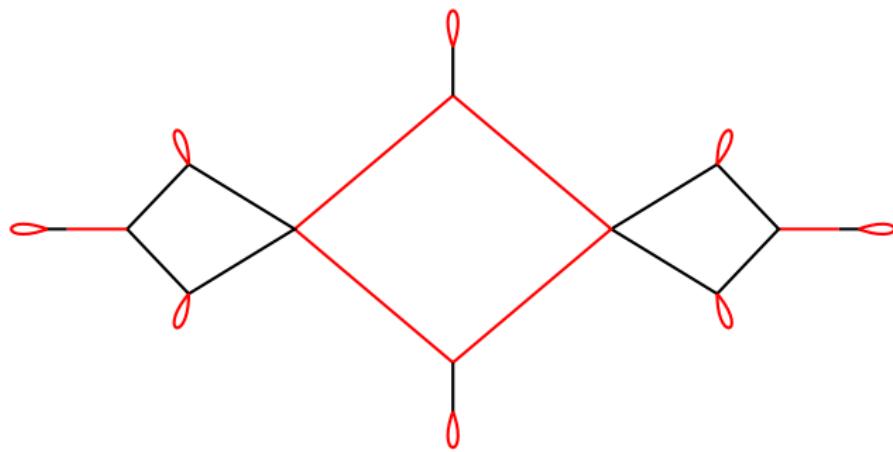
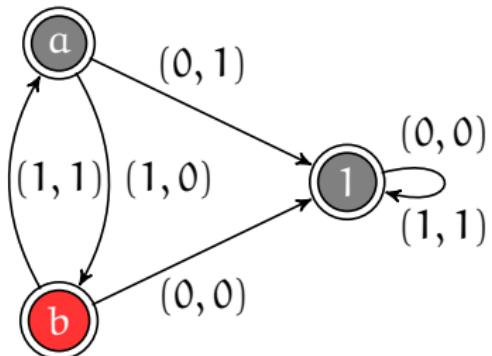
The Grigorchuk group $G = \langle a, b, c, d \rangle$



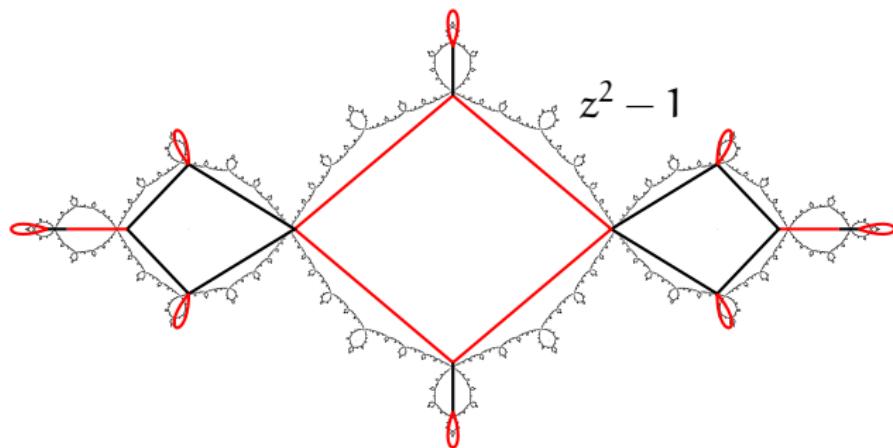
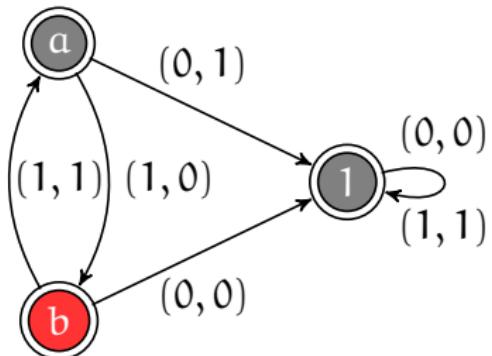
Automata groups | The Basilica group

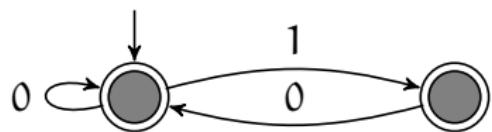


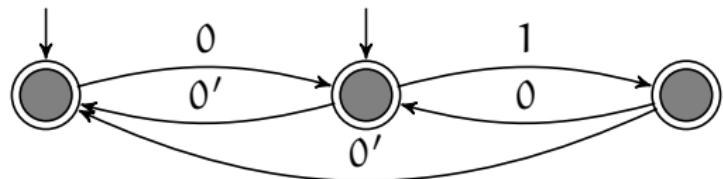
Automata groups | The Basilica group

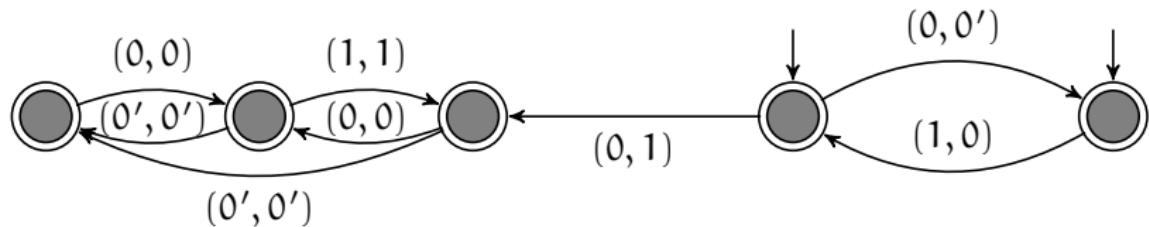
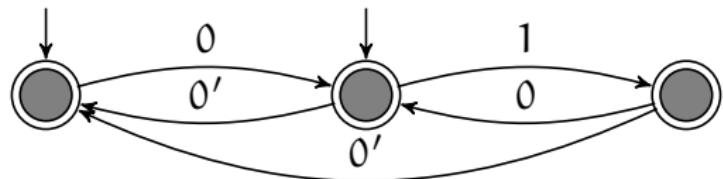


Automata groups | The Basilica group









Substitutional subshifts

The Thue-Morse subshift

