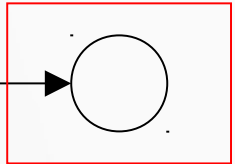


Transformação ER para AFN

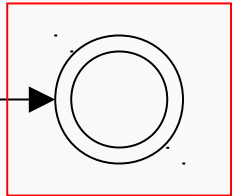
Universidade Estadual de Mato Grosso do Sul - UEMS
Ciência da Computação
Linguagem Formais e Autômatos
Prf Dr Osvaldo Vargas Jaques
ojacques@comp.uems.br

ERs Primitivas

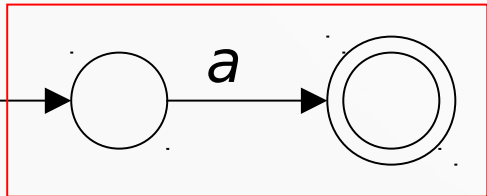
AFNs



$$L(M_1) = \emptyset = L(\emptyset)$$



$$L(M_2) = \{\varepsilon\} = L(\varepsilon)$$

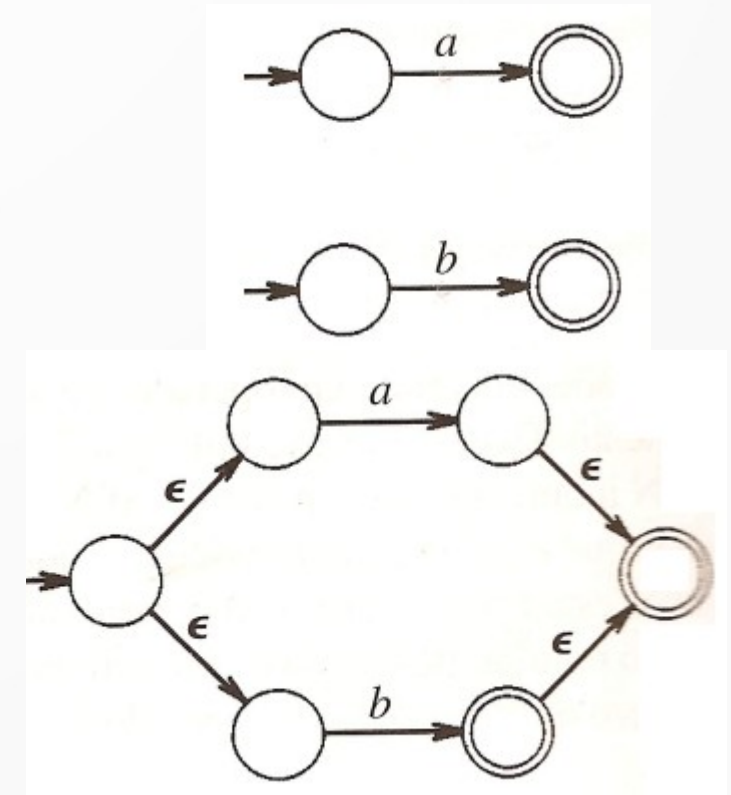
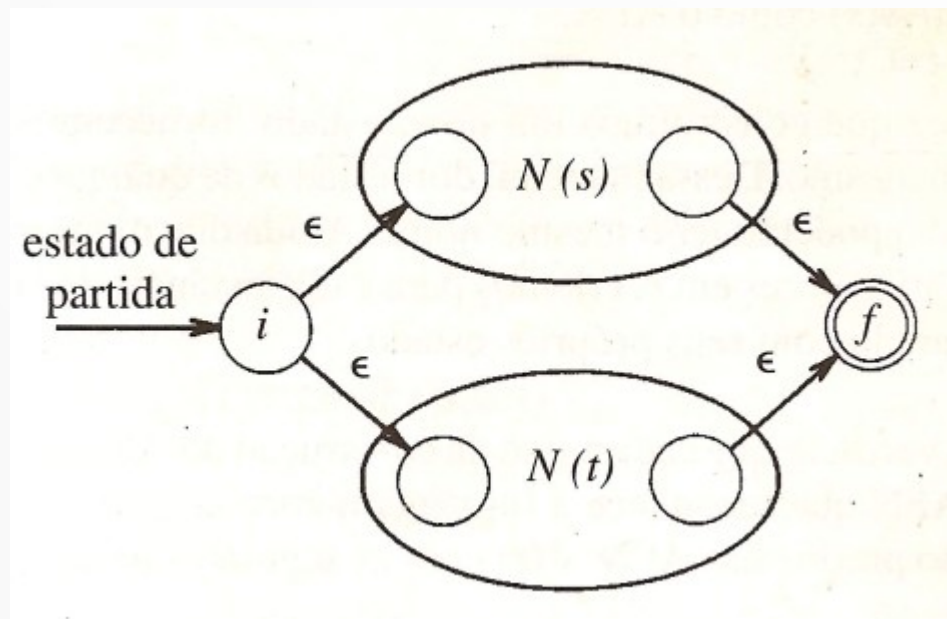


$$L(M_3) = \{a\} = L(a)$$

Linguagens
Regulares

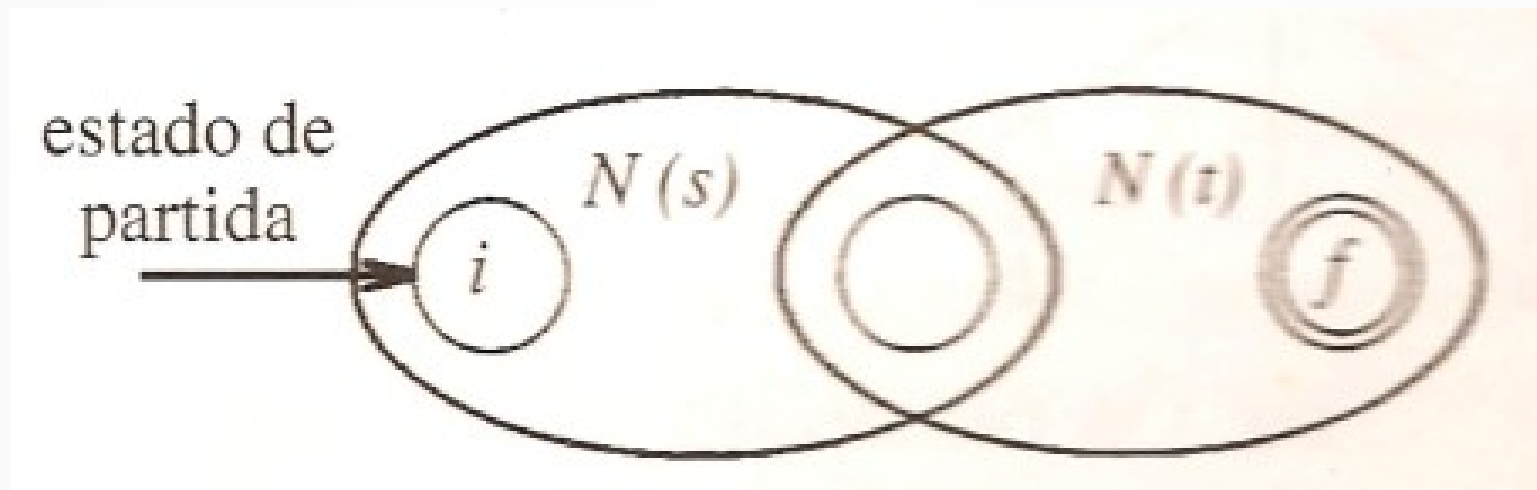
Construção de Thompson

- Suponha que $N(s)$ e $N(t)$ sejam AFNs de duas ERs s e t
a) Para a $s \cup t$, construímos o seguinte AFN



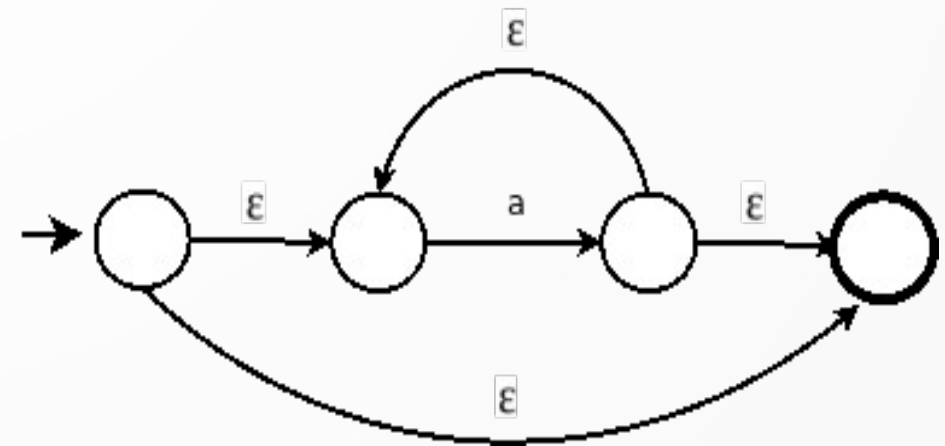
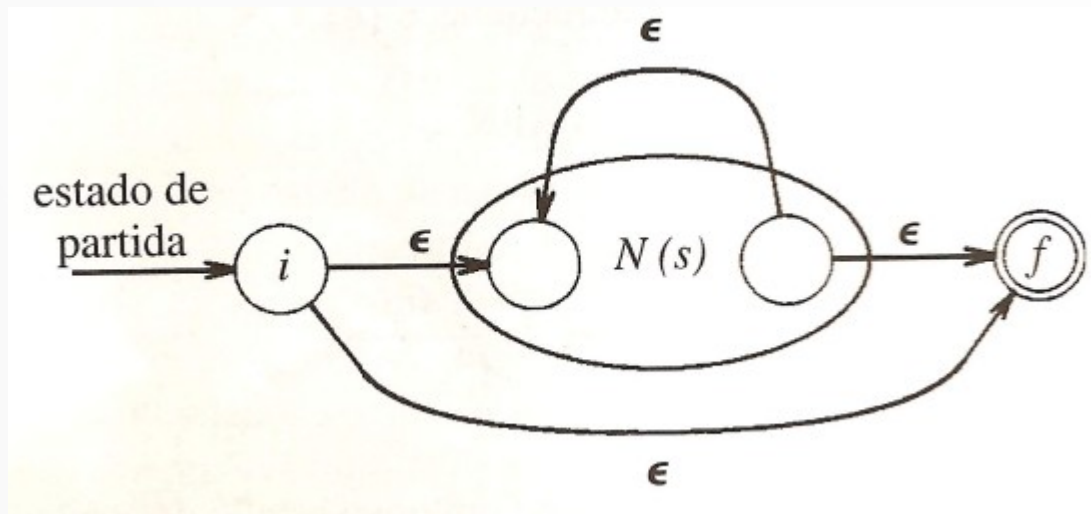
Construção de Thompson

b) Para a ER st , construímos



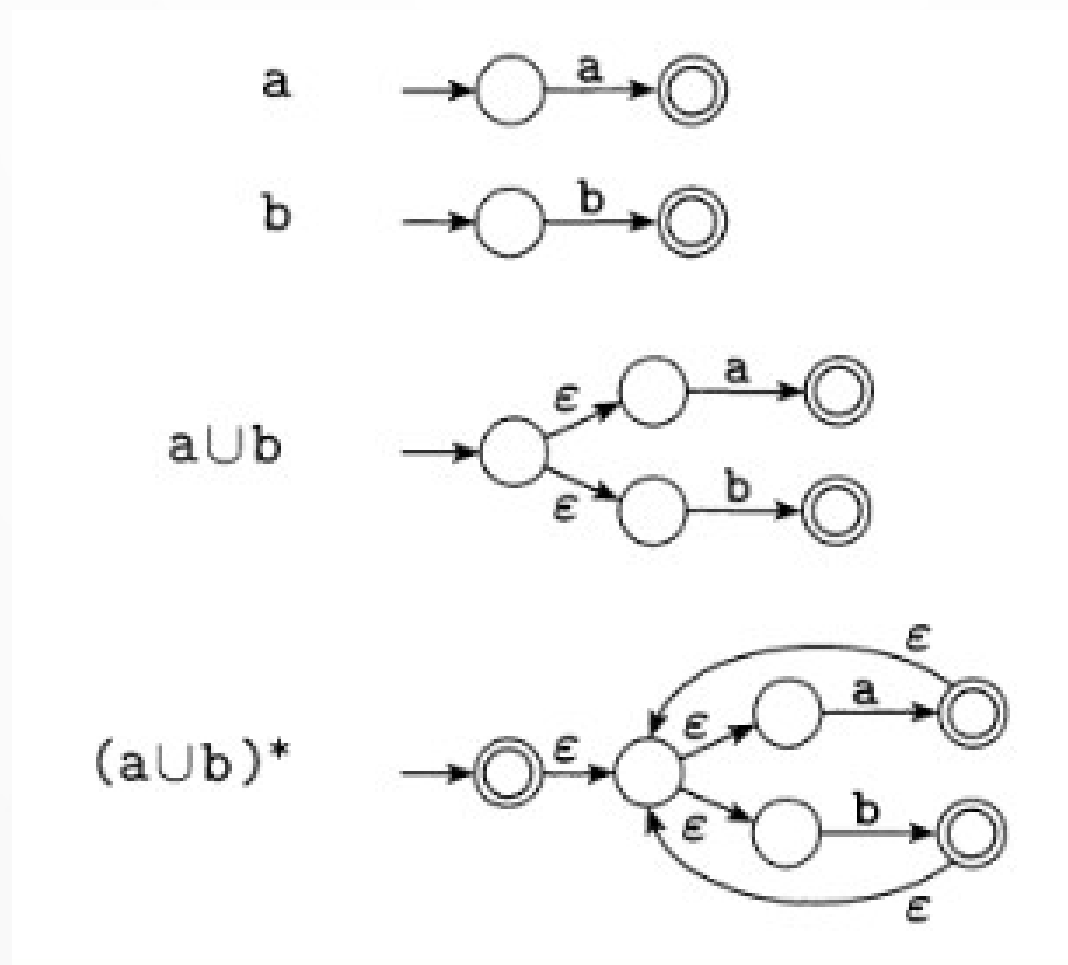
Construção de Thompson

c) Para a ER s^* , construímos



Construção de Thompson

- Em outros livros, como SIPSER



Exercícios

- Construa AFNs para as seguintes Ers

1) $(a \cup b)^*abb$

2) $ab(ab \cup \varepsilon)ab^*$

3) $(0 \cup 1)^* 000 (0 \cup 1)^*$

4) $((((00)^*(11)) \cup 01)^*$