



**Instituto Politécnico
Nacional**
Escuela Superior de Cómputo



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Compiladores

Grupo: 3CV8

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Ejercicio 3 – LR(0)

Ejercicio 3 LR(0)

$S' \rightarrow S$
 $S \rightarrow E$
 $E \rightarrow E + T$
 $E \rightarrow T$
 $T \rightarrow T * F$
 $T \rightarrow F$
 $F \rightarrow (E)$
 $F \rightarrow id$

terminales
 $+$
 $($
 $)$
 $*$
 id

$$Cerradura (S' \rightarrow S) = I_0 \left\{ \begin{array}{l} S' \rightarrow \cdot S \\ S \rightarrow \cdot E \\ E \rightarrow \cdot E + T \\ E \rightarrow \cdot T * F \\ E \rightarrow \cdot T \\ T \rightarrow \cdot F \\ F \rightarrow \cdot (E) \\ F \rightarrow \cdot id \end{array} \right.$$

$$Mover(I_0, S) = I_1 (S' \rightarrow S \cdot)$$

$$Mover(I_0, E) = I_2 \left\{ \begin{array}{l} S \rightarrow E \cdot \\ E \rightarrow E \cdot + F \end{array} \right.$$

$$Mover(I_0, T) = I_3 \left\{ \begin{array}{l} E \rightarrow T \cdot \\ E \rightarrow T \cdot * F \end{array} \right.$$

$$Mover(I_0, F) = I_4 (T \rightarrow F \cdot)$$

$$Mover(I_0, () = I_5 \left\{ \begin{array}{l} F \rightarrow (\cdot E \\ E \rightarrow \cdot E + T \\ E \rightarrow \cdot T \\ T \rightarrow \cdot T * F \\ T \rightarrow \cdot F \\ F \rightarrow \cdot (E \\ F \rightarrow \cdot id \end{array} \right.$$

$$I_6$$

$$\text{lr_a}(I_0, id) = (F \rightarrow id \cdot)$$

$$I_7$$

$$\text{lr_a}(I_2, +) = \left(\begin{array}{l} E \rightarrow E + \cdot T \\ T \rightarrow \cdot T * F \\ T \rightarrow \cdot F \\ F \rightarrow \cdot (E) \\ F \rightarrow \cdot id \end{array} \right)$$

$$I_8$$

$$\text{lr_a}(I_3, *) = \left(\begin{array}{l} E \rightarrow T * \cdot F \\ F \rightarrow \cdot (E) \\ F \rightarrow \cdot id \end{array} \right)$$

$$I_9$$

$$\text{Move}(I_5, E) = \left(\begin{array}{l} F \rightarrow (E \cdot) \\ E' \rightarrow E \cdot + \end{array} \right)$$

$$\text{Maer}(I_0, T) = \left(\begin{array}{l} E \rightarrow T \cdot * F \\ T \rightarrow T \cdot * F \end{array} \right) \xrightarrow{I_3}$$

$$\text{Maer}(I_5, F) = (T \rightarrow F \cdot) \xrightarrow{I_4}$$

$$\text{Ir}_a(I_5, () = \left(\begin{array}{l} F \rightarrow (\cdot E \\ E \rightarrow \cdot E + T \end{array} \right) \xrightarrow{I_5}$$

$$\text{Ir}_a(I_5, id) = (F \rightarrow id \cdot) \xrightarrow{I_6}$$

$$\text{Maer}(I_7, T) = \left(\begin{array}{l} E \rightarrow E + T \cdot \\ T \rightarrow T \cdot * F \end{array} \right) \xleftarrow{I_{10}}$$

$$\text{Maer}(I_7, F) = (T \rightarrow F \cdot) \xrightarrow{I_4}$$

$$\text{Ir}_a(I_7, () = \left(\begin{array}{l} F \rightarrow (\cdot E \\ E \rightarrow \cdot E + F \end{array} \right) \xleftarrow{I_5}$$

$$\text{Ir}_a(I_7, id) = (F \rightarrow id \cdot) \xrightarrow{I_6}$$

$$\text{Ir}_a(I_8, id) = (f \rightarrow id \cdot) \xrightarrow{I_6}$$

$$\text{Maer}(I_8, F) = (E \rightarrow T * F \cdot) \xleftarrow{I_{11}}$$

$$\text{Ir}_a(I_8, () = \left(\begin{array}{l} F \rightarrow (\cdot E \\ E \rightarrow \cdot E + T \end{array} \right) \xrightarrow{I_5}$$

$$\text{Ir}_a(I_9,) = (F \rightarrow (E) \cdot) \xleftarrow{I_{12}}$$

$$\text{Ir}_a(I_{10}, *) = \left(\begin{array}{l} T \rightarrow T * \cdot F \\ E \rightarrow \cdot (E) \end{array} \right) \xleftarrow{I_0}$$

