PDM Scheduling

Calculations in three steps

1 Calculation of the **earliest dates** by propagation (**forward pass**) from left to right

$E_\alpha \leftarrow$ Project start date

Order $\{a_j\}$ so that $a_i \prec a_k \ \forall \ i < k$

For $j = 1$ to $|\{a_j\}|$ repeat:

$$ES_j \leftarrow \begin{cases} E_\alpha \text{ if } \Gamma_j^{-1} = \emptyset \\ \max_{k \in \Gamma_j^{-1}} \{ ES_k + DUR_k \} \\ \qquad\qquad\qquad \text{otherwise} \end{cases}$$

2 Calculation of the **latest dates** by propagation (**backward pass**) from right to left

$L_\omega \leftarrow E_\omega$

For $j = |\{a_j\}|$ to 1 repeat:

$$LF_j \leftarrow \begin{cases} L_\omega \text{ if } \Gamma_j = \emptyset \\ \min_{k \in \Gamma_j} \{ LF_k - DUR_k \} \\ \qquad\qquad\qquad \text{otherwise} \end{cases}$$

3 Calculation of the **total floats** and **free floats**

$TF_j \leftarrow LF_j - EF_j$

$FF_j \leftarrow \min_{k \in \Gamma_j} \{ ES_k \} - EF_j$