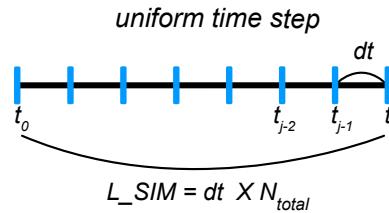


# Schematic representation of forward sea-level model algorithms

iceload file read in by the sea-level model

iceload file skipped by the sea-level model

## (a) Standard algorithm

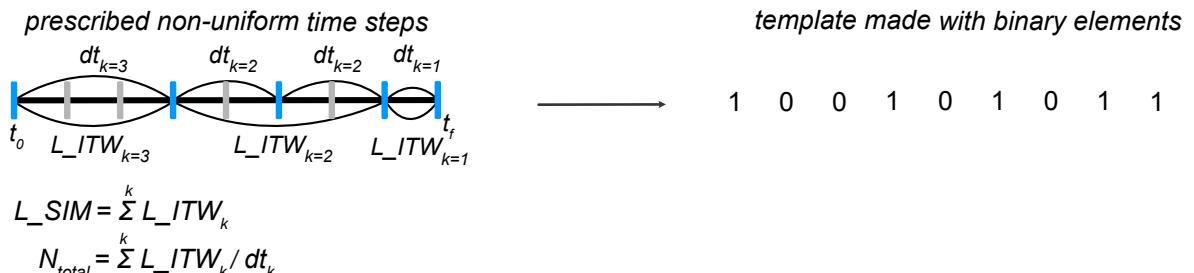


uniform increase in the number of loading events  $N_j$

- $j = 1, N_1 = 1$        $\Delta t = t_1 - t_0$   
 $t_0 \quad t_1$        $N_j = \Delta t / dt = j$
- $j = 2, N_2 = 2$        $N_{total} = L_{SIM} / dt$   
 $t_0 \quad t_1 \quad t_2$       forward stepping
- $\vdots$   
loading history & computational cost increases with  $t_j$
- $j = 5, N_5 = 5$   
 $t_0 \quad t_1 \quad t_2 \quad t_3 \quad t_4 \quad t_5$
- $j = 6, N_6 = 6$   
 $t_0 \quad t_1 \quad t_2 \quad t_3 \quad t_4 \quad t_5 \quad t_6$
- $j = 7, N_7 = 7$   
 $t_0 \quad t_1 \quad t_2 \quad t_3 \quad t_4 \quad t_5 \quad t_6 \quad t_7$
- $j = 8, N_8 = 8$   
 $t_0 \quad t_1 \quad t_2 \quad t_3 \quad t_4 \quad t_5 \quad t_6 \quad t_7 \quad t_8$

## (b) Time window algorithm

### 1. Before the start of a simulation (set up)



### 2. During a simulation

