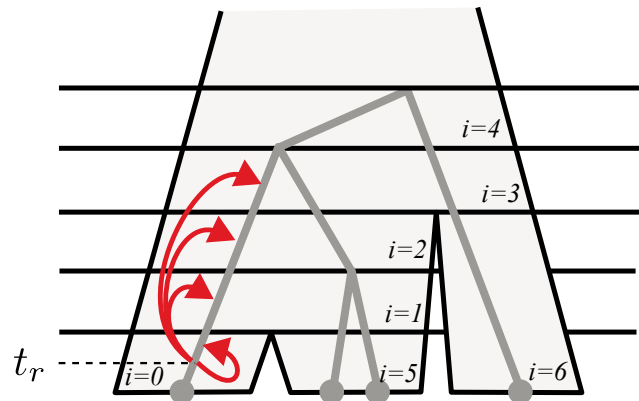


(a) Tree-unchanged event



(b)

$$i = 0$$

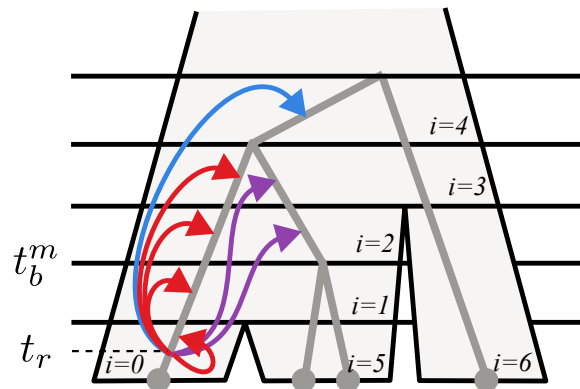
$$\mathcal{I}_b = \{0, 1, 2, 3\}$$

$$\mathcal{J}_b(i) = \{1, 2, 3\}$$

(c)

$f(i, j)$	$\mathcal{Q}_b(i, j)$
$f(0, 0)$	$\{\}$
$f(0, 1)$	$\{\}$
$f(0, 2)$	$\{1\}$
$f(0, 3)$	$\{1, 2\}$

(d) Topology-unchanged event



(e)

$$\mathcal{I}_{bc} = \{0, 1, 2, 3, 4\}$$

$$\mathcal{I}_c = \{4\}$$

$$\mathcal{M}_b = \{2, 3\}$$

$$\mathcal{L}_b = \{0, 1\}$$

(f)

$f(i, j)$	$\mathcal{Q}_b(i, j)$
$f(0, 0)$	$\{\}$
$f(0, 1)$	$\{\}$
$f(0, 2)$	$\{1\}$
$f(0, 3)$	$\{1, 2\}$
$f(0, 4)$	$\{1, 2, 3\}$