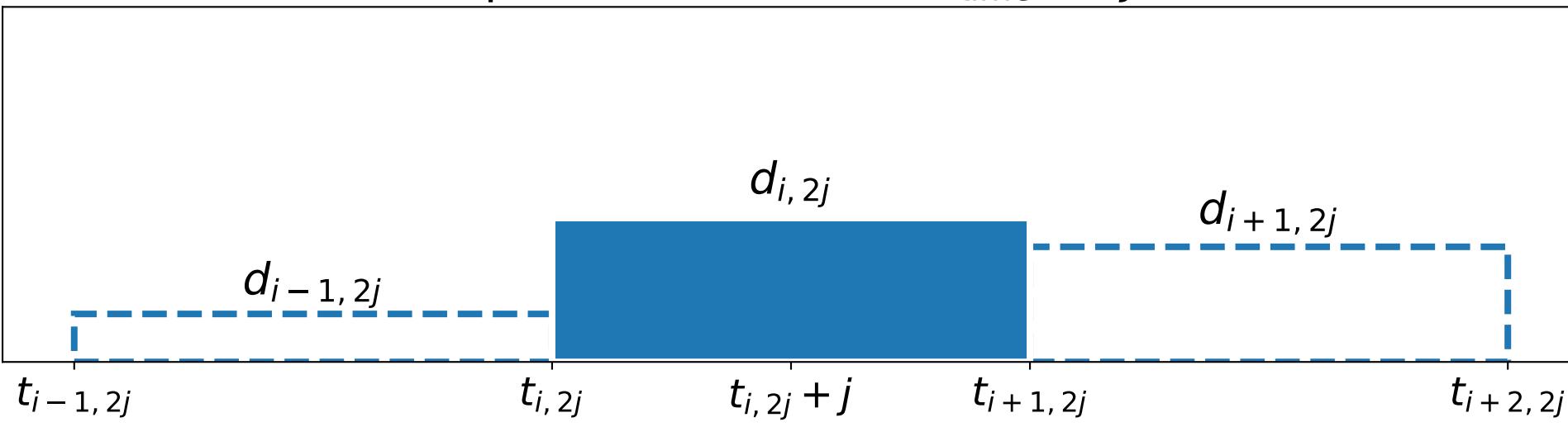


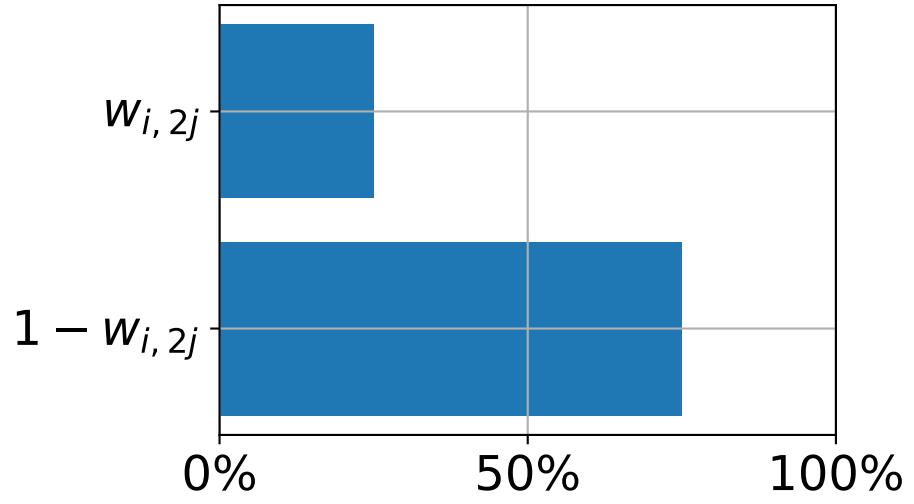
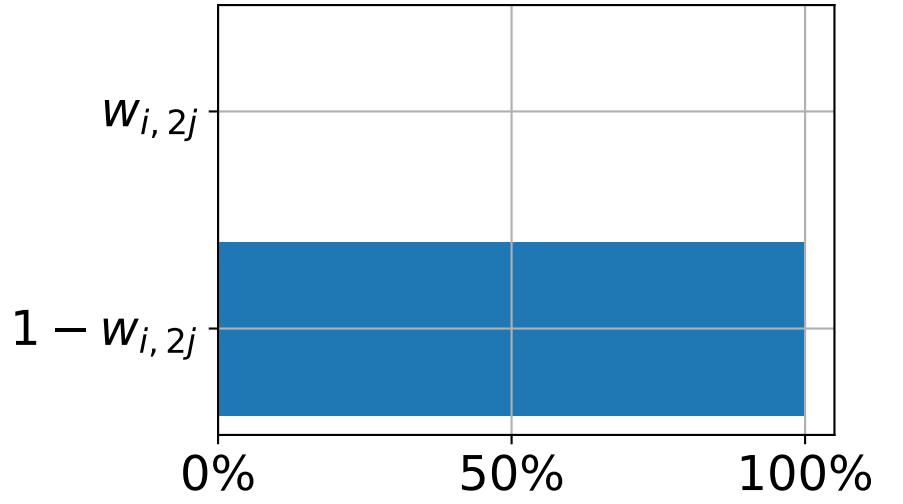
# Time-series of depths at time-scale $S_{time} = 2j$ , with $i \in [1..N]$



$u_{0, i, 2j} \sim \mathcal{U}([0, 1]), u_{0, i, 2j} < P(W = 0 | S_{time} = 2j, D = d_{i, 2j}, T = T_{i, 2j})?$

Yes:  $w_{i, 2j} = 0$

No:  $w_{i, 2j} \sim \mathcal{N}_{[0, \frac{1}{2}]}(\frac{1}{2}, \sigma(S_{time} = 2j)^2)$



$u_{1, i, 2j} \sim \mathcal{U}([0, 1]), u_{1, i, 2j} < P(S = 0 | S_{time} = 2j)?$

Yes

No

Yes

No

# Time-series of depths at time-scale $S_{time} = j$ , with $i \in [1..N]$ , and $t_{2i,j} = t_{i, 2j}$

