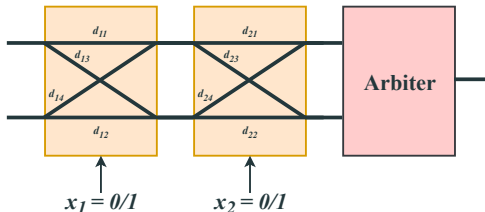


EXAMPLE

$$\begin{array}{llll} d_{11} = 1.1 \text{ ns} & d_{13} = 1.0 \text{ ns} & d_{21} = 1.2 \text{ ns} & d_{23} = 0.8 \text{ ns} \\ d_{12} = 1.3 \text{ ns} & d_{14} = 1.5 \text{ ns} & d_{22} = 1.4 \text{ ns} & d_{24} = 0.9 \text{ ns} \end{array}$$



$$(x_1, x_2) = (0, 0) : d_{11} + d_{21} < d_{12} + d_{22} \rightarrow 0$$

$$(x_1, x_2) = (0, 1) : d_{12} + d_{24} > d_{11} + d_{23} \rightarrow 1$$

$$(x_1, x_2) = (1, 0) : d_{14} + d_{21} > d_{13} + d_{22} \rightarrow 1$$

$$(x_1, x_2) = (1, 1) : d_{13} + d_{24} > d_{14} + d_{23} \rightarrow 0$$

x_1	x_2	f
0	0	0
0	1	1
1	0	1
1	1	0

The Boolean function induced by the PUF is $f(x_1, x_2) = x_1 \oplus x_2$, where " \oplus " denotes XOR.