$$\mathbb{P}(\boldsymbol{u}_A[k] = 0) = \mathbb{P}(\boldsymbol{u}_A[k] = 1) = 0.5$$

$p_{AB} = \mathbb{P}(\nu_{AB} = 1)$ $p_{BC} = \mathbb{P}(\nu_{BC} = 1)$

$p_{ABC} = ?$