



A quantum circuit diagram consisting of three horizontal lines. The top two lines are connected by a gate labeled $U_N(\theta_1)$. The bottom two lines are connected by a gate labeled $U_N(\theta_2)$. The top line then connects to a gate labeled $U_N(\theta_3)$ along with the middle line. The bottom line continues straight through.

$$U_N(\theta_1)$$
$$U_N(\theta_2)$$
$$U_N(\theta_3)$$