

	Depth	Condition	
[?]	$O\left((t, \log(1/\varrho)) \cdot N^{1/\mathfrak{K}}\right)$	C is a \mathfrak{K} -lattice	
[?]	$O\left((Nt^2 + t \log(1/\varrho)) \log N\right)$	—	diamo
[?]	$O\left(t \ N + t \log(1/\varrho)\right)$	$t \leq 2^{N/4}$	
[?]	$O\left(t^2 \ N + t^2 \log(1/\varrho)\right)$	$t \leq 2^{N/4}$	
[?]	$O\left((Nt + \log(1/\varrho)) \log^7 t\right)$	$t = O\left(2^{2N/5}\right)$	diamo
[?]	$O\left((\xi t + \log(N/\varrho)) \log^7 t\right)$	$t = O\left(2^{2\xi/5}\right), \exists \xi \geq 1$	diamo

Table 1: Circuit depth upper bound for ϱ -approximate unitary t -designs on N qubits.