

Optimized adaptive protocol

$\bar{\mu} = 0$ (init)

for $n = 1$ to N :

$t_n = 2^{N-n}$

$M_n = G + F(n-1)$

for $m=1$ to M_n :

choose $\vartheta_{n,m}^{\text{ctrl}}$

if ($\bar{\mu} = 0$) then:

$\vartheta_{n,m}^{\text{incr}} = u_0 [m,n]$

else:

$\vartheta_{n,m}^{\text{incr}} = u_1 [m,n]$

$\bar{\mu} = \mathbf{Ramsey} (\vartheta = \vartheta_{n,m}^{\text{ctrl}} + \vartheta_{n,m}^{\text{incr}}, \tau = t_n \tau_{\min})$

Bayesian_update(res = $\bar{\mu}$, $\vartheta = \vartheta_{n,m}^{\text{ctrl}} + \vartheta_{n,m}^{\text{incr}}$, $\tau = t_n \tau_{\min}$)