Multi-players $M = 6$ : Cumulated centralized regret, averaged $1000$ times
9 arms: $[B(0.1), B(0.2), B(0.3), B(0.4)^*, B(0.5)^*, B(0.6)^*, B(0.7)^*, B(0.8)^*, B(0.9)^*]$

**Legend:**
- Cumulated centralized regret
- $(a)$ term: Pulls of 3 suboptimal arms (lower-bounded)
- $(b)$ term: Non-pulls of 6 optimal arms
- $(c)$ term: Weighted count of collisions
- Our lower-bound $= 48.8 \log(t)$
- Anandkumar et al.'s lower-bound $= 15 \log(t)$
- Centralized lower-bound $= 8.14 \log(t)$

Y-axis: Cumulative centralized regret $\mathbb{E}_{1000}[R_t]$

X-axis: Time steps $t = 1 \ldots T$, horizon $T = 10000$, 6 players: $6 \times$ RhoRand-KLUCB