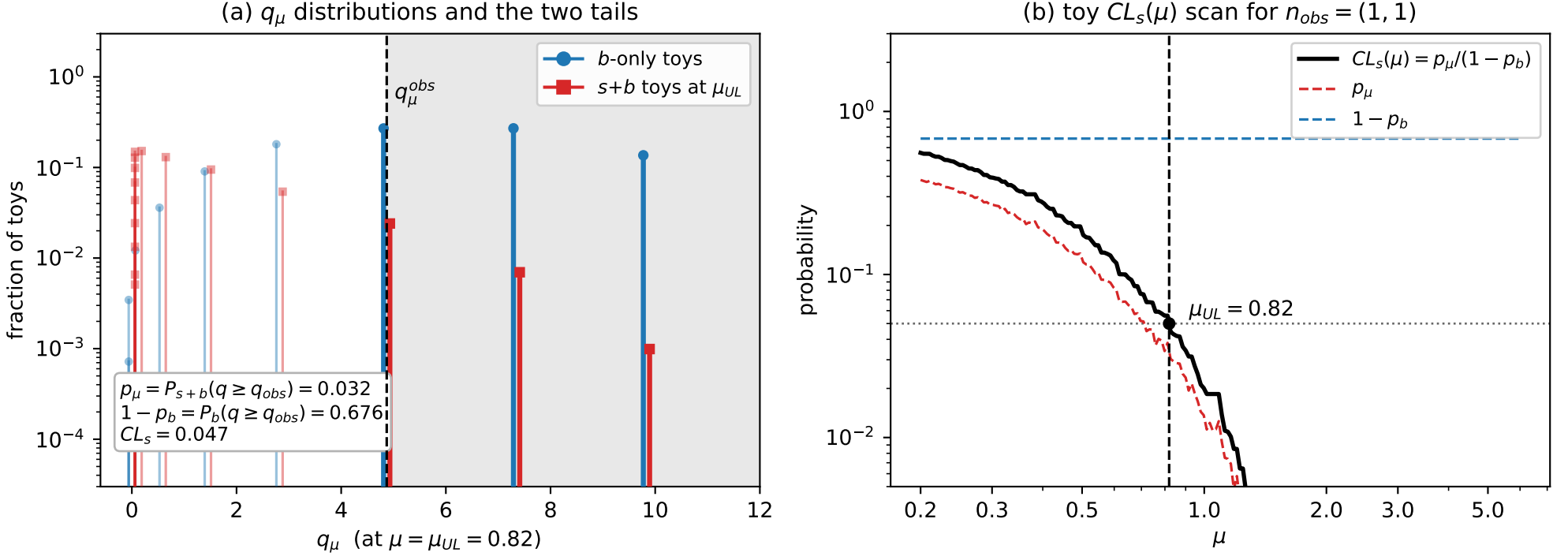

(a) q_μ distributions and the two tails
b-only toys
s+b toys at μ_{UL}
q_μ^{obs}
$p_\mu = P_{s+b}(q \geq q_{obs}) = 0.032$
$1 - p_b = P_b(q \geq q_{obs}) = 0.676$
$CL_s = 0.047$
fraction of toys
q_μ (at $\mu = \mu_{UL} = 0.82$)
(b) toy $CL_s(\mu)$ scan for $n_{obs} = (1, 1)$
$CL_s(\mu) = p_\mu/(1 - p_b)$
p_μ
$1 - p_b$
$\mu_{UL} = 0.82$
probability
μ