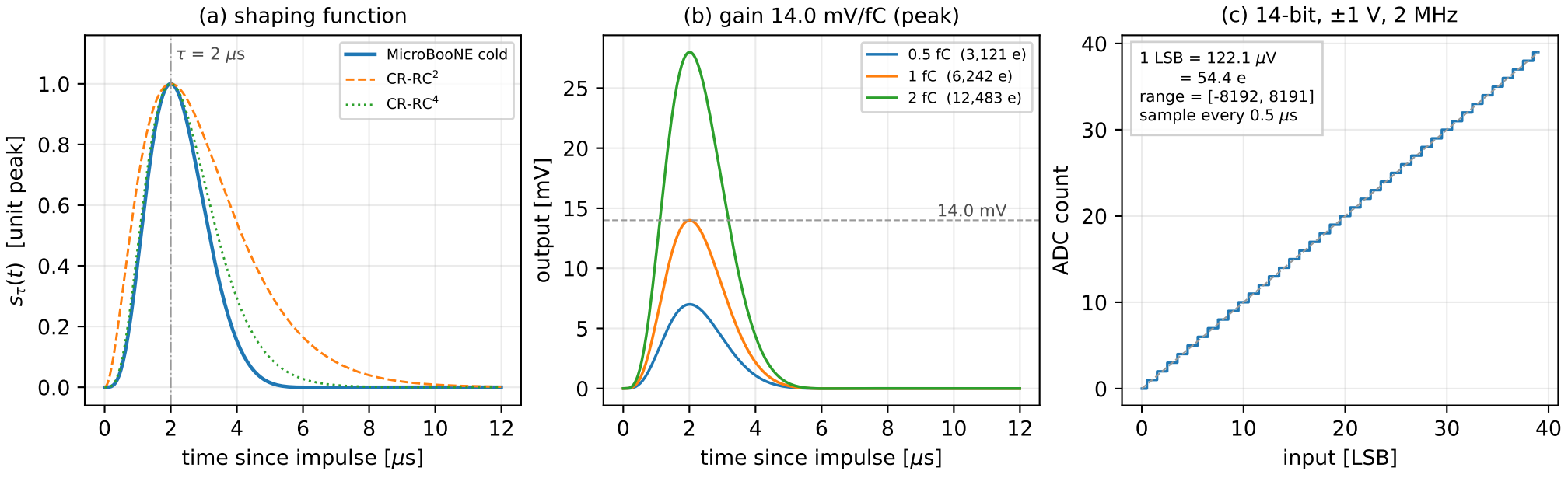
(a) shaping function
τ = 2 μs
MicroBooNE cold
CR-RC²
CR-RC⁴
s_τ(t) [unit peak]
time since impulse [μs]
(b) gain 14.0 mV/fC (peak)
0.5 fC (3,121 e)
1 fC (6,242 e)
2 fC (12,483 e)
14.0 mV
output [mV]
time since impulse [μs]
(c) 14-bit, ±1 V, 2 MHz
1 LSB = 122.1 μV
= 54.4 e
range = [-8192, 8191]
sample every 0.5 μs
ADC count
input [LSB]