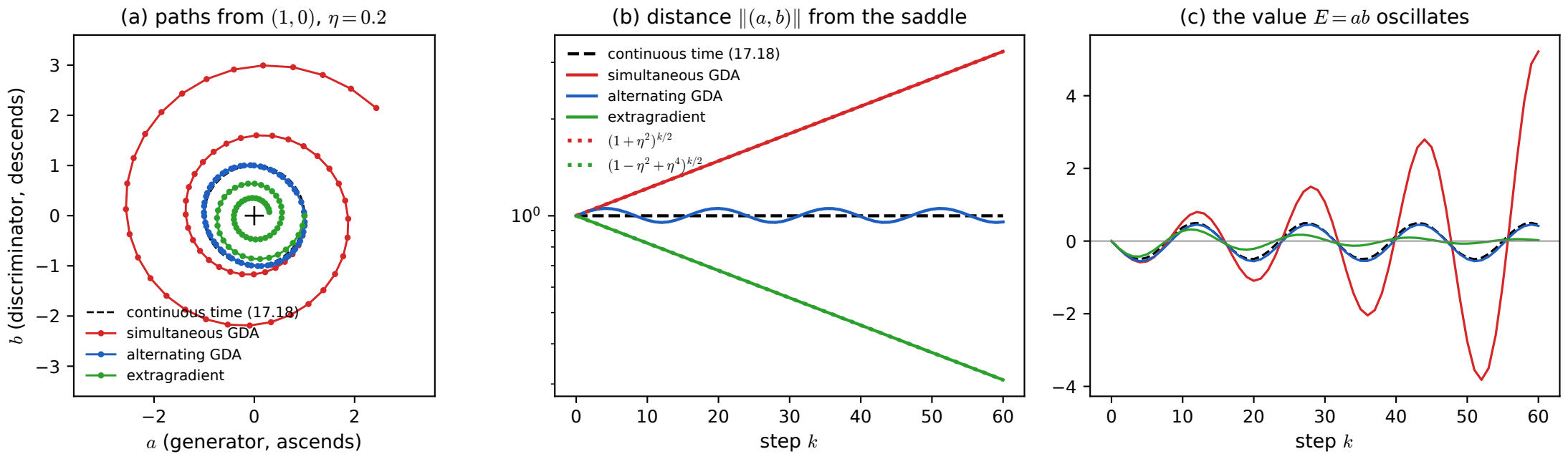

(a) paths from $(1, 0)$, $\eta = 0.2$
b (discriminator, descends)
a (generator, ascends)
continuous time (17.18)
simultaneous GDA
alternating GDA
extragradient
(b) distance $\|(a, b)\|$ from the saddle
10^0
$(1+\eta^2)^{k/2}$
$(1-\eta^2+\eta^4)^{k/2}$
step k
(c) the value $E = ab$ oscillates
step k