William H. Sandholm Department of Economics University of Wisconsin whs@ssc.wisc.edu January 8, 2019

Corrections to Population Games and Evolutionary Dynamics (MIT Press, 2010)

Substantive corrections:

p64 l16&17	this should say "a potential game with a concave potential func-
-	tion, whose set of Nash equilibria is therefore convex."
p260 l-4	add "and solutions are continuous in initial conditions" [this con-
-	dition on (D) is needed for Theorem 7.B.3—see p264]
p264 l11	"Since solutions to (D) are unique, and hence continuous in"
_	→ "Since solutions to (D) are continuous in" [see p260]
p465	the last paragraph of the proof of Theorem 12.2.2 can be replaced
	by the observation that $\log \mu_x^{N,\eta}$ is always nonpositive (since $\mu_x^{N,\eta}$
	is a probability)

Typos and other minor things:

```
"Sec. 12.5 only" \longrightarrow "Sec. 12.6 only"
p xxi fig 1
                  "chapter 5" \longrightarrow "chapter 4"
p17 l16
p37 fig 2.9
                  the axis labels should be x_H and x_D
                  \mathbb{R}^n \longrightarrow \mathbb{R}^n_+
p54 l17
                  x^p \longrightarrow x^p
p54 l19
                  \mathbb{R}^n_+ \ \longrightarrow \ X
p64 l8
                  m^p \longrightarrow m^p
p64 l11
p93 l6
                  omit "equation (3.20) from the previous proof shows that"
p94 l-5
                  the line should end with x, y \in X
                  the first \tilde{\Sigma} should be \tilde{\Sigma}
p94 l-1
p99 12
                  j \min b(x) \longrightarrow j = \min b(x)
                  this should say x \in GESS(F) \Leftrightarrow x \in \bigcap_{y \in X - \{x\}} I_F(y)
p116 l11
p123 l-2
                  F \longrightarrow F
p134
                  e \longrightarrow e (twice)
                  "interpretation" → "interpretation"
p141 l3
p166 l10
                  \pi_i^p(x) \longrightarrow \pi_i^p
p172 l-14
                  p \longrightarrow p
p183 l4
                  this dynamic \longrightarrow the best response dynamic
p184 l7
                  omit "is globally stable and"
                  after the comma, add "let F(x) denote the distribution function of
p194 l-8
                  \varepsilon_i, and"
                  |y_s - x_s| \longrightarrow |y_s - x_s|^2
p208 l8
```

```
p221 l5
                  omit "are"
                  "That \tilde{f}" \longrightarrow "That \tilde{f}"
p227 l-10
                  end this with "dynamics with protocols of the form"
p235 l-16
p245 l1
                  G^{-1}(0) \longrightarrow G^{-1}(0)
                  end this with "for this dynamic with \varepsilon = \frac{1}{10}"
p236 l12
p262 l4
                  t_n \longrightarrow t_k
                  \sum_{j=1}^{k} t_i \longrightarrow \sum_{i=1}^{k} t_i; also, x_j \longrightarrow x_i
p262 l5
                  replace this with "...embed this flow in the plane as an asymptoti-
p262 l-10
                  cally stable homoclinic orbit whose rest point is attracting but not
                  asymptotically stable."
                  "also they" \longrightarrow "they also"
p269 18
                  "equiibrium" → "equilibrium"
p281 l-12
                  in the bottom row of the last matrix, \xi_1 should be \xi_2
p310 l7
p313 l16
                  omit "the real and imaginary parts"
                  "important" → "importantly"
p329 l16
                  "suffficiently" → "sufficiently"
p333 l4
                  \hat{V}(y) = h(V(h^{-1}(y))) \longrightarrow \hat{V}(y) = MV(h^{-1}(y))
p337 l-11
                  omit "and the Poincaré-Bendixson Theorem"
p353 l-6
                  X^N \longrightarrow X^N_t
p389 l-10
                  "Sahdholm" → "Sandholm" (!)
p395 l-14
p425 l14
                  \Phi_i \longrightarrow \Phi
                  the summand should be (F_1^N(\frac{j}{N},\frac{N-j}{N})-F_0^N(\frac{j-1}{N},\frac{N-j+1}{N}))
p426 l1
p426 l-13
                  f \longrightarrow f^N
                  f \longrightarrow f^N; \tilde{f} \longrightarrow \tilde{f}^N
"part (i)" \longrightarrow "parts (i) and (ii)"
p426 l-11
p433 l-9
                  I^{\eta}(x) \longrightarrow I^{\eta}(\chi)
p480 l5

\Delta_F \longrightarrow F_\Delta \\
+1 \longrightarrow -1

p482 l-4
p497 l-11
                  [0,\bar{\varepsilon}] \longrightarrow (0,\bar{\varepsilon}] (twice)
p503 l17-18
p513 l10-11
                  for all i, j, k \in S \longrightarrow for all distinct i, j, k \in S (and hence for all
                  i, j, k \in S with i \neq j and i \neq k (why?))
                  "Theory" \longrightarrow "The Theory"
p549 17
p559 19
                  81-108 \longrightarrow 667-689
p576 l-14
                  "upperhemicontinuous" → "upper-hemicontinuous"
```