

# Errata *Game Theory: An Introduction, Second Edition*

For errors in the solution manual, see the Errata for the Solutions Manual.

I would like to thank Professors Peter Tingley and Piotr Frackiewicz for finding many of these errors.

1. Page 13, line -10, game floor should be **gain floor**.
2. Page 15, line 6, ....then I will play row 1.... (not player II).
3. Page 27, line -6, This proof is due to Y. Peres *Game Theory, Alive* with contributions by David B. Wilson
4. Page 28, line -11, This would be bad...; line -8,  $\geq$  should be  $=$ .
5. Page 29, line -4, a  $y_j$  is missing in  $\sum E(X,j) y_j$
6. Page 34, line -7, Theorem 1.6 should be Theorem 1.3.8.
7. Page 40, line -3, *me* should be *we*.
8. Page 51, Problem 1.32 (a) "probability" should be replaced by "expectation".
9. Page 53, line 3 of Definition 1.6.1,  $x_i^*$  in the summation should be  $x_i$ .
10. Page 56, Example 1.21 matrix,  $\beta$  should be  $-\beta$ .
11. Page 74, Solution to Problem 2.11(d), p.476, "Then player I has row 2 dominated by **row 1.**" not column 1.
12. Page 75,  $a_{12}$  in the second row of the matrix in Problem 2.19 should be  $a_{22}$ . In the solution to Problem 2.19(b), p.478,  $J_5$  should be  $J_4$ .
13. Page 96, Solution to Problem 2.37 ,p. 483, line 12, should have  $X^*=(0.43,0.086,0.152,0.326,0,0,0)$ . A period should be a comma after 0.086.
14. Page 96, Problem 2.38, row 1 of matrix should have blitz BL, not italic.
15. Page 108, line -18, Problem 2.49, blank after "and" should be before "and."
16. Page 126, line -4 ...that (assuming positive denominator)...
17. Page 127, line 1 in expression for  $x^*$ ,  $a_{-21}$  should be  $a_{21}$ .; line -14,...slope R (assuming positive denominator):...
18. Page 131, line -5, *knowing player I*, should be *knowing player II*.
19. Page 135, line -4, after second equality  $x_n$  should be 1.
20. Page 148, line -19, delete "in the 1960s".
21. Page 161, lines 13 and 15,  $p_{21}$  should be  $p_{11}$  and  $p_{22}$  should be  $p_{12}$ .
22. Page 162, lines -6 and -7, the subscripts on B and P should be on the right side, not the left. For example  $B_1 P_1 = 4/3 \geq B_2 P_1 = 4/3$ .
23. Page 163, line 17,  $21/4$  should be  $16/3$ .
24. Page 164, lines -2 and -3  $\leq$  should be  $\geq$  .
25. Page 166, line -11 and -13, q's should be p's.
26. Page 167, Problem 3.43 last line: Show that  $P_5$  gives...
27. Page 183, line 4,  $35/36$  should be  $17/36$  and  $5/18$  should be  $4/9$ .
28. Page 189, Solution to Problem 4.1,p. 501 , should have (0,3) is also a pure Nash Equilibrium.
29. Page 207, line -12, I will always play D, not C.
30. Page 224, line 2,  $-\alpha$  should be  $-4-\alpha$ .

31. Page 227, line 4,  $1/(N+1)$  should be  $M/(N+1)$  and  $1/(N(N+1))$  should be  $M/(N(N+1))$ .
32. Page 232, line -9,  $X(x)$  should be  $X^*(x)$ ; line -8,  $Y$  should be  $Y^*$
33. Page 233, line 12, should be  $t_1 \geq v/c$  and  $t_2 \geq c$ ; line -7,  $y$  in integral should be  $t_2$ .
34. Page 247, line 2,  $q^*$  in  $D'$  should be  $2q^*$ .
35. Page 265, line -2, lower limit 0 in the integral should be "a."
36. Page 273, line -12,  $\leq$  should be  $<$ .
37. Page 278, line -5,  $\beta$  should be "b."
38. Page 287, line 9, 1991 should be 1971.
39. Page 302, line -13, Figure 6.2 should be Figure 6.3.
40. Page 314, line 5, min max should have min max  $e(S,x)$ .
41. Page 329, line -5, drop  $v(ik)$  from formula for  $x_i$  and -2 should be +2
42. Page 333, Solution to Problem 6.27, p.527, line 12,  $\xi_3$  should be  $x_3$ .
43. Page 334, Solution to Problem 6.29, p. 528, line 13,  $105.5-\epsilon$  should be  $105.5+\epsilon$ ; line 16, -70.75 should be -7.75. ; line 18,  $e(23,x)=65-72.75=-7.75$ .
44. Page 356, line -20, "row 1" should be row 2.
45. Page 363, Figure 6.15,  $y=31/12$  should be  $v=31/12$ .
46. Page 367, -line 3,  $X_t^T A Y_t$  should be  $X_t A Y_t^T$ .
47. Page 370, line 7,  $y_t^T$  should be  $Y_t^T$ .
48. Page 371, line 15, formula (6.7) , $\frac{1}{2}$  multiplies entire expression starting with b.
49. Page 372, line -10, Example 6.19 should be Example 6.27 (Figure 6.19).
50. Page 396, line 14 and line 18,  $1-p$  should be  $p$  and  $p$  should be  $1-p$ .
51. Page 397, line 3, remove the comma between subscripts  $j$  and  $i^*$ .
52. Page 400, line 3 and line 11,  $>$  for (1) of Definition 7.1.3 should be  $\geq$ .
53. Page 401, line 11, 7.3 should be 7.1.3; line 12, 7.4 should be 7.1.4.
54. Page 403, line -5,  $u(x,0)=1-x$  not  $x$ .
55. Page 423, line -3, properties 7.9(3) should be properties 7.1.1(3).
56. Page 425, line -4, ...negative *and zero* terms...;  $k(1/2,0)=0$  analyzed has Jacobian at that point which is  $< 0$ , so  $(1/2,0)$  is unstable.
57. Page 426, line 2, the word "hence" should be removed, asymptotic stability does not necessarily imply ESS.
58. Page 427, Since  $k(p_1,p_2)=0$  for all equilibrium points. we cannot use Theorem 7.2.3. We have to use eigenvalues of the Jacobian: For the equilibrium points  $(0,0)$ ,  $(1,0)$ , and  $(0,1)$  the eigenvalues are  $(-1,1)$  and hence  $(0,0)$ ,  $(1,0)$  and  $(0,1)$  are unstable. For  $(1/3,1/3)$  the eigenvalues are both complex  $i(1/\sqrt{3})$ ,  $-1/\sqrt{3}$  with zero real part. This means that  $(1/3,1/3)$  is a center point and the plot shows it is unstable. Also, the determinant of the Jacobian is  $1/3 > 0$ .
59. Page 428, Delete the first paragraph.