

Game Theory (Continued from page 8)

[3] S. Nasar, "The lost years of a Nobel Laureate", *NY Times*, v. 144, Nov. 13, 1994, p. F1.

A human-interest story about the game theorist John Nash, who suffered from mental illness at times during his career.

[4] L. Helm, "Nobel puts spotlight on game theory", *LA Times*, v. 113, Oct. 19, 1994, p. D1.

Discusses implications of game theory for the Federal Communications Commission auction of radio-wave licenses.

[5] R. Pool, "Putting game theory to the test", *Science*, v. 267, Mar. 17, 1994, p. 1591-93.

An ecological biologist tries to confirm game theoretic predictions of animal behavior.

[6] M. Nowak, R. May, and K. Sigmund, "The arithmetics of mutual help", *Scientific American*, v. 272, June, 1995, p. 76-81.

Describes attempts to use game theory to explain cooperation and non-cooperation within animal species.

[7] (Unsigned) "How to weigh a small nation", *NY Times*, Mar. 23, 1994, p. A11.

Discusses how the European Union deals with the member countries' differences in population and economic strength.

[8] C. Bolgar, "EU nations accept voting plan", *Wall Street Journal*, Mar. 30, 1994, p. 110.

Discusses changes in voting used by the EU, introduced when new members were added recently.

[9] W. Lucas, *Fair Voting: Weighted Votes for Unequal Constituencies*, HiMAP Module 19, COMAP, Lexington MA, 1992.

An introduction to weighted voting and the methods for weighting based on power indices.

[10] COMAP, *For All Practical Purposes*, 3rd. Ed, W.H. Freeman, NY, 1994.

Chapter 12 contains a detailed introduction to weighted voting. Chapter 15 discusses the theory of games in general.

[11] F. Roberts, *Applied Combinatorics*, Prentice-Hall, NJ, 1984, Sec. 2.16, "Power in Simple Games", and Sec. 4.7, "The Coleman and Banzhaf Power Indices".

An (advanced) introduction to weighted voting and power indices, with a number of examples.

Game Theory Bibliography

by Joseph Malkevitch

1. Friedman, J., *Game Theory with Applications to Economics*, 2nd Ed., Oxford U. Press, 1990.

This is a clear but mathematically sophisticated treatment of the theory of cooperative (and uncooperative) games. It includes exercises, with answers to some of them.

2. Gibbons, R., *Game Theory for Applied Economists*, Princeton U. Press, 1992.

Dynamic games (those which evolve over time), repeated games, and auctions are among the many topics treated here.

3. Luce, R. and H. Raiffa, *Games and Decisions*, Dover, 1989.

This reprint of a 1957 classic is still wonderful reading despite its age.

4. Lucas, W. *Fair Voting: Weighted Voting for Unequal Constituencies*, HiMAP Module 19, COMAP, Lexington, MA, 1992.

An introduction to weighted voting and the methods for weighting based on power indices.

5. Morris, P. *Game Theory*, Springer-Verlag, 1995.

An undergraduate text on game theory.

6. Ordeshook, P., *Game Theory and Political Theory*, Cambridge U. Press, 1989.

This book discusses such topics as utility (the value that individuals put on outcomes in a strategic situation), prisoner's dilemma (a paradoxical game involving decisions on whether to cooperate or not), and paradoxes associated with voting games.

7. Straffin P., *Game Theory and Strategy*, MAA, 1993.

This is a wonderfully rich book about the theory of games. It covers most of the major ideas in a motivated and succinct way, and has many examples.

(Continued on page 10)