Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISSN 1083-0464
Issue 2, December 2000, pp. 44–51.
Submitted: July 23, 2000. Published: December 15, 2000.

NEGOTIATIONS UNDER UNCERTAINTY

Ferenc Szidarovszky and Abdollah Eskandari

Abstract. A one-step solution for two-person conflicts is examined when the break-down probabilities depend on the goodness of the offers and the relative power indices of the players. In the one-step solution each player maximizes his/her expected payoff. The uncertainty in the power index is characterized by its CDF and fuzzy membership function. Based on the monotonicity of solution simple algorithms are suggested to obtain the CDF and membership function of the solution in closed forms. A simple example illustrates the methodology.

1991 A.M.S. Subject Classification Codes: 90.

Key Words and Phrases: Negotiation, uncertainty, fuzzy function, break down probability.

F. Szidarovszky, A. Eskandari, Systems and Industrial Engineering Department, University of Arizona,
Tucson, Arizona 85721, U.S.A.
E-mail: szidar@sie.arizona.edu