CORRIGENDUM

The page below was inadvertently omitted from page 780 of *IJUFKS*, Vol. 11, No. 6 (December 2003) — “Interval Methods in Knowledge Representation (abstracts of recent papers)”, by V. Kreinovich.

that if we place money in the bank that pays this interest and withdraw the amount A every year, we will get exactly 0 after n -th withdrawal. Knowing q enables us to make decisions about whether to invest in this annuity or not: e.g., if this q is smaller than the actual bank's interest rate q_0 , then it is better to leave the money in the bank; if q is larger than q_0 , then it is better to invest in an annuity. For a simple annuity, the effective rate of return is a solution to a polynomial equation.

There are many known methods of numerical solution of polynomial equations. Most of these methods are iterative, they produce approximate results that become better and better after each iteration. The problem is that in finance, many competitive financial tools have very close effective rates of return (tools with smaller rates of return are simply not competitive), so to gain profit, we must often operate on a very small difference between different effective rates. Thus, when we select one of the two annuities based on the results $\tilde{q}_1$ and $\tilde{q}_2$ of the computations, we must make be sure that the relation $\tilde{q}_1 > \tilde{q}_2$ remains true for the actual (exact) values q_i as well. From this viewpoint, it is desirable not just to get an approximate value $\tilde{q}$, but also get the interval $[\underline{q}, \bar{q}]$ that is guaranteed to contain q . In this case, we select the first annuity only if $\underline{q}_1 > \bar{q}_2$ — this guarantees that $q_1 > q_2$. The authors describe techniques for producing such intervals. They also show how these algorithms can be expanded to more complex annuities, e.g., annuities that make payments several times a year.

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Hahn Pham, Yiming Ye, and Vien Nguyen, “Autonomous mapping of e-business demands and supplies via invisible Internet agents”, *Electronic Commerce Research*, 2003, Vol. 3, pp. 365–395.

Textbook economic methods describe the best business strategies for known values of supply and demand and for the known trends describing how supply and demand will change. In reality, we can only predict supply and demand with some uncertainty. In traditional business, taking this uncertainty into consideration is an important part of difficult-to-formalize negotiating and management skills. In e-business, however, many transactions are performed by communicating autonomous bidding agents, without direct human involvement. It is therefore necessary to design agents that automatically take the corresponding uncertainties into consideration.

The simplest uncertainty of this type is when instead of the exact values of the corresponding supply and demand characteristics, we only know intervals of possible values for supply and demand. Often, in addition to the interval of possible values, we also know that some of these values are very probably and some are barely probable. In other words, for each value x within the corresponding interval, we also know a degree to which this value is possible. In mathematical terms, this means that instead of simply an interval, we now have a fuzzy number. The authors show how this interval and fuzzy uncertainties can be taken into consideration in e-business, and described a software system that implement their techniques.