where $p = i + s$ and $q = j - s$, should be, on the average, monotonically decreasing if the positive integer s is sufficiently small compared with the difference $j - i$.

6 Numerical experiments

For many an ancient narrative text, commentators have performed the job of discovering repeated fragments or duplicates. By a repetition (variant of a duplicate), we may understand not only a repetition of names (see above), but, more generally, the repeated description in the text of some event. For example, in the Old and New Testaments, all such repetitions (duplicates) discovered by commentators have been indicated and collected in the so-called 'set of parallel passages'. The method of text ordering and duplicate recognition is also applicable to the list of reciprocal citations in any closed collection of narrative and other texts.

As a simple example, we took Machiavelli's History of Florence (Russian edition, Leningrad, 1973) supplied with detailed commentary. It is evident that the latter can be considered as a series of chapters duplicating the basic text of Machiavelli himself and clarifying it. The book was broken into chapter-generations, which permitted us to construct a square matrix $K\{T\}$ also reflecting the commentary and of the form approximately as in Fig. 5, where the blocks filled with maxima are in thick lines. Therefore, the method has successfully discovered statistical duplicates consisting here of the later commentary to the History of Florence. (In analyzing it, I was assisted by A. Makarov.)

We now describe a version of the method which also permits us to discover statistical duplicates in a text divided into chapter-generations. Consider the augmented rectangular matrix $P\{T\}$ made up according to the same principle as the square one $K\{T\} = \{K(T_0, T)\}$. Each row of $P\{T\}$ describes the evolution of an individual name with the indication of its use frequencies in each subtext $X(T)$.

In other words, we have to write out, along the vertical, all consecutive different names from X as they appear in the text. We then should indicate on the horizontal line all frequencies of the name use in the chapter-generations $X(T)$ for $1 \leqslant T \leqslant n$. We call $P\{T\}$ the rectangular (name) frequency matrix. In other words, to construct $P\{T\}$, we have to consider a sequence of s rows, where s is the number of T_0-names first appearing in the chapter $X(T_0)$ instead of each row T_0 of the matrix $K\{T\}$. The value $P(B_0, T_0)$ is the first
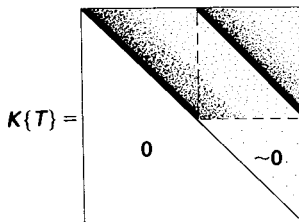

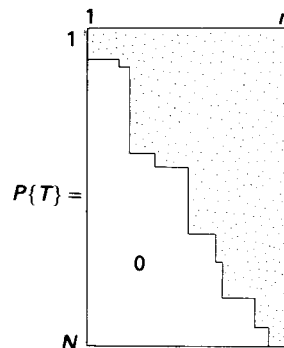Figure 5. *Square name frequency matrix for Machiavelli's History of Florence.*

Figure 6. *Rectangular ('step-like' triangular) name frequency matrix.*