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Data structures and algorithms for the string statistics problem. (English) Zbl 0846.68023
Algorithmica 15, No. 5, 481-494 (1996).

Summary: Given a textstring x of length n , the minimal augmented suffix tree $\widehat{T}(x)$ of x is a digital-search index that returns, for any query string w and in a number of comparisons bounded by the length of w , the maximum number of nonoverlapping occurrences of w in x . It is shown that, denoting the length of x by n , $\widehat{T}(x)$ can be built in time $O(n \log^2 n)$ and space $O(n \log n)$, off-line on a RAM.

MSC:

68P05 Data structures
68W10 Parallel algorithms in computer science

Cited in **12** Documents

Keywords:

minimal augmented suffix

Full Text: [DOI](#)

References:

- [1] A. V. Aho, J. E. Hopcroft, and J. D. Ullman, *The Design and Analysis of Computer Algorithms*, Addison-Wesley, Reading, MA, 1974. · [Zbl 0326.68005](#)
- [2] A. Apostolico, The myriad virtues of subword trees, in *Combinatorial Algorithms on Words* (A. Apostolico and Z. Galil, eds.), ASI F-12, Springer-Verlag, New York, pp. 85–95, 1985. · [Zbl 0572.68067](#)
- [3] A. Apostolico and F. P. Preparata, Optimal off-line detection of repetitions in a string, *Theoret. Comput. Sci.*, 22 (1983), pp. 297–515. · [Zbl 0497.68052](#) · [doi:10.1016/0304-3975\(83\)90109-3](#)
- [4] A. Apostolico and F. P. Preparata, Structural properties of the string statistics problem, *J. Comput. System Sci.*, 31(3) (1985), 394–411. · [Zbl 0593.68047](#) · [doi:10.1016/0022-0000\(85\)90060-1](#)
- [5] M. Crochemore and W. Rytter, Squares, cubes, and time-space efficient string searching, *Algorithmica*, 13 (1995), 405–425. · [Zbl 0849.68044](#) · [doi:10.1007/BF01190846](#)
- [6] R. C. Lyndon and M. P. Schutzenberger, The equation $M = b N c P$ in a free group, *Michigan Math. J.*, 9 (1962), 289–298. · [Zbl 0106.02204](#) · [doi:10.1307/mmj/1028998766](#)
- [7] E. M. McCreight, A space economical suffix tree construction algorithm, *J. Assoc. Comput. Mach.*, 25 (1976), 262–272. · [Zbl 0329.68042](#)

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