

Complexity of finite and infinite words

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This paper is a survey on complexity of words with some new directions, based mainly on [1] and [2], and including the following subjects:

1 Finite words

2 Infinite words

3 Complexity measures

3.1 Subword complexity

3.1.1 Maximal complexity

3.1.2 Global maximal complexity

3.1.3 Total complexity

3.2 Generalized complexity measures

3.2.1 Rainbow words

3.2.1.1 The case $d_1 = 1$

3.2.1.2 The case $d_2 = n - 1$

3.2.2 General words

4 Palindrome complexity

4.1 Palindromes in finite words

4.2 Palindromes in infinite words

4.2.1 Sturmian words

4.2.2 Power word

4.2.3 Champernowne word

5 De Bruijn words and graphs

References

- [1] Z. Kása, M. C. Anisiu, Complexity of words, in: *Algorithms of Informatics, III. Selected topics* (ed. A. Iványi), mondAt Kiadó, Budapest, 2013. pp. 1237–1289. ISBN 978-963-87596-7-2. https://www.researchgate.net/publication/274735246-Complexity_of_words
- [2] Z. Kása, On arc-disjoint Hamiltonian cycles in De Bruijn graphs, *arXiv 103.1520* <https://arxiv.org/abs/1003.1520>

To be presented in the poster section.