

# Combinatorics on Words

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# Part 0: Introduction

# Introduction

Combinatorics on words is the study of finite and infinite symbolic sequences.

It is a field at the frontier with several other fields of mathematics and computer science.

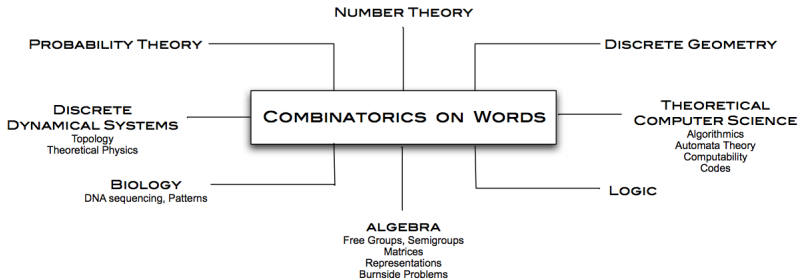


Figure: Credits: Amy Glen

Some relevant books:

- 1 M. Lothaire. *Combinatorics on Words*. Addison-Wesley, 1983
- 2 M. Lothaire. *Algebraic Combinatorics on Words*. Cambridge University Press, 2002
- 3 J.P. Allouche, J. Shallit. *Automatic Sequences*. Cambridge University Press, 2003
- 4 M. Lothaire. *Applied Combinatorics on Words*. Cambridge University Press, 2005
- 5 J. Berstel, A. Lauve, C. Reutenauer, F. Saliola. *Combinatorics on Words: Christoffel Words and Repetitions in Words*. AMS, 2008
- 6 V. Berthé, M. Rigo. *Combinatorics, Automata and Number Theory*. Cambridge University Press, 2010
- 7 M. Rigo. *Formal Languages, Automata and Numeration Systems*. Wiley, 2014

Other related books:

- 1 A. de Luca, S. Varricchio. Finiteness and Regularity in Semigroups and Formal Languages. Springer, 1999
- 2 N. Pytheas Fogg. Substitutions in Dynamics, Arithmetics and Combinatorics. Springer, 2002
- 3 D. Perrin, J.-E. Pin. Infinite Words: Automata, Semigroups, Logic and Games. Academic Press, 2004
- 4 J. Shallit. A Second Course in Formal Languages and Automata Theory. Cambridge University Press, 2008
- 5 J. Berstel, D. Perrin, C. Reutenauer. Codes and automata. Cambridge University Press, 2009
- 6 C. Reutenauer. From Christoffel Words to Markoff Numbers. Oxford University Press, 2018
- 7 J. Shallit. The Logical Approach to Automatic Sequences. Cambridge University Press, 2022