

Alignments of two random sequences: models and results

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Abstract

The comparison of sequences of characters is a central problem in many modern applications of mathematics such as bioinformatics, computational linguistics or coding. There are of course different frameworks under which sequences can be compared, each one leading to different models and both theoretical as well as practical results. Random sequences come into play - but not exclusively - when validating the comparison methods. Indeed, there are relations with other probabilistic problems which give to the study of comparison of random sequences importance by itself. In this talk I will briefly discuss the most popular models of comparison of two random sequences, describe a bit of the history of the results and show how the existing open questions are currently being tackled.