

NP-hardness and Algorithms

- Finding the best possible parsimony score of a given tree T (with leaves labelled by DNA sequences) can be computed in polynomial time using an algorithmic technique called “Dynamic Programming”. You will learn how to design dynamic programming algorithms in this course.
- But finding the best possible tree for the sequences is NP-hard. You will learn what that means, and how to design methods that address NP-hard problems.