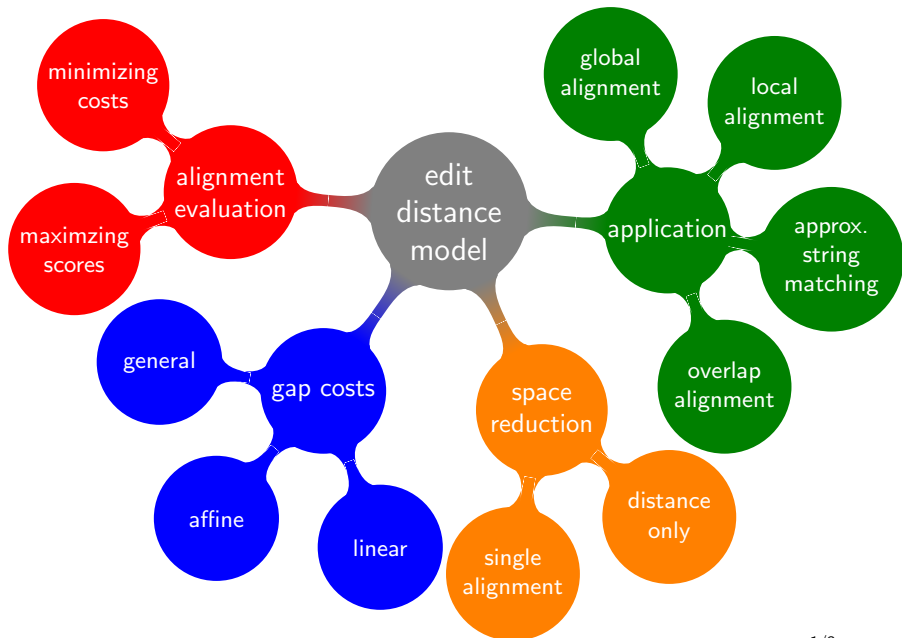
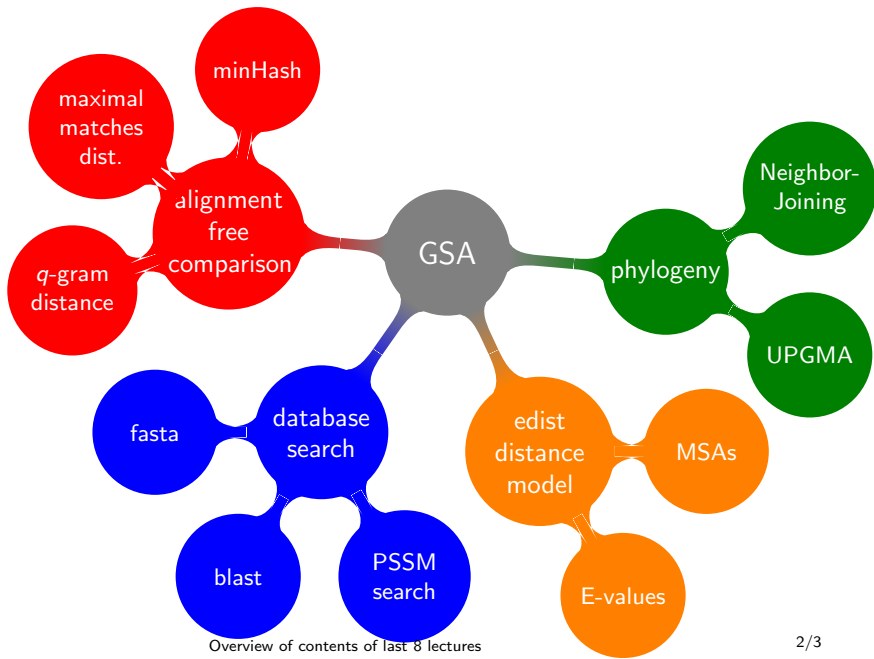


# Overview of contents of first 6 lectures



# Overview of contents of last 8 lectures



# Learning general methods from different fields

## Theoretical informatics

- BigO-notation
- algorithm analysis (space/runtime)
- graph theory: shortest paths in directed graphs
- recurrence equation

## Mathematics and Statistics

- formal definition of notions
- geometric series
- proof by contradiction
- proof by induction
- Jaccard Index
- Poisson distribution
- estimation of mutation probabilities
- clustering

## Algorithmic paradigms

- dynamic programming
- backtracing
- divide and conquer
- sort/merge algorithms
- inplace computation
- lookahead computation
- hash functions
- incremental string hashing