String kernels construction and fusion: A survey with bioinformatics application

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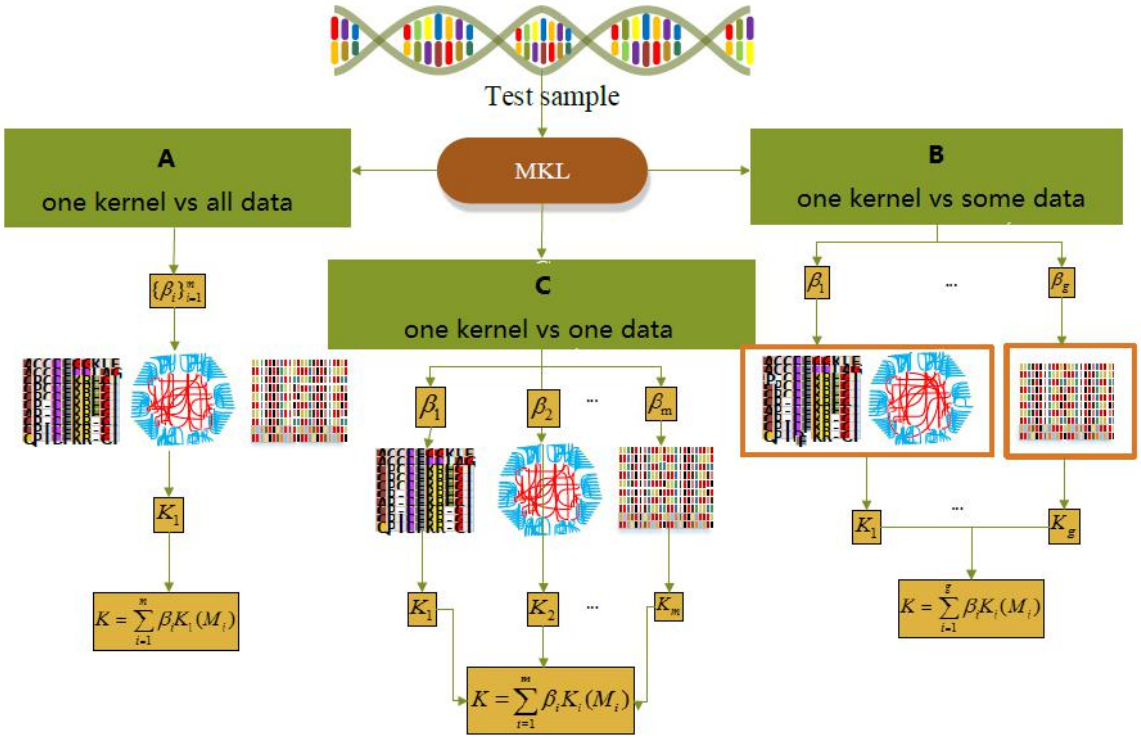
Problems & Ideas

- Problems of multiple kernel learning fusion methods in bioinformatics
  - Methods for constructing kernels in bioinformatics
  - Multiple kernel learning
  - Common kernel fusion methods in bioinformatics



Problems & ideas

- Applications:
  - Application of kernel fusion in protein sequence-related problems
  - Application of kernel fusion in DNA and RNA sequence-related problems of kernel fusion in protein sequence-related problems
  - Kernel fusion based on the application of bipartite networks

Main Contributions

- The paper reviewed methods of constructing kernel matrix based on the characteristics of biological sequences and kernel fusion methods existing in the multiple kernel learning framework.

- Varies kernels applied in bioinformatics were explained clearly, which could help the readers to select proper kernels for distinguishing tasks.

- Besides comprehensive summary of kernel fusion methods is another highlight. All kinds of kernel fusion methods were shown in the paper.