A  Bootstrapping

Alignment of sequences

Species 1  ATGTTGGAATGATGAT
Species 2  ATGTTGGAAGGAGAA
Species 3  ATGTTGGAAGGAGAA
Species 4  ATGTTGGAAGGAGAA

Bootstrapping alignment #1

Species 1  ATGTTGGAATGATGAT
Species 2  ATGTTGGAAGGAGAA
Species 3  ATGTTGGAAGGAGAA
Species 4  ATGTTGGAAGGAGAA

Bootstrapping alignment #2

Species 1  ATGTTGGAATGATGAT
Species 2  ATGTTGGAAGGAGAA
Species 3  ATGTTGGAAGGAGAA
Species 4  ATGTTGGAAGGAGAA

B  Jackknifing

Alignment of sequences

Species 1  ATGTTGGAATGATGAT
Species 2  ATGTTGGAAGGAGAA
Species 3  ATGTTGGAAGGAGAA
Species 4  ATGTTGGAAGGAGAA

Jackknifed alignment 1 (10 columns kept)

Species 1  AT–T–GGA–GG–GA–
Species 2  AT–T–GGA–GG–GA–
Species 3  AT–T–AGG–GA–GA–
Species 4  AT–T–AGC–GC–GC–

Jackknifed alignment 2 (10 columns kept)

Species 1  --GTTG--GTTG--AT
Species 2  --GTTG--GGA--AA
Species 3  --GTTA--GAA--AA
Species 4  --GTCAG--GCC--CC

FIGURE 27.21. Bootstrapping. (A) Bootstrapped alignment #1. The columns in green and light blue are not part of the new alignment and the columns in yellow and red are present twice. Bootstrapped alignment #2. The columns in green and light blue are present but the two columns in dark blue are not and the column in pink is represented three times. (B) Jackknifing. Alignments are resampled without replacement such that the new alignments have fewer columns than the original.

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