

## Übungen zur Vorlesung

### *Algorithms for context prediction in ubiquitous systems*

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Stephan Sigg (sigg@ibr.cs.tu-bs.de)

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## 4 Alignment prediction approaches

### 4.1 Global alignment, local alignment and semiglobal alignment

Consider the following two strings:

**String 1** BCAABACAABACAACCCBBAAAACCBCCC

**String 2** CBAAAABABAACCBBCBBA

For these strings, find the optimum

- a) global alignment
- b) local alignment
- c) semiglobal alignment (gap symbols at the beginning of both strings and at the end of the first string are for free)

Assume that the alignment score is 1 for each match,  $-1$  for each mismatch and  $-2$  for every gap.