

### Integrated analysis of complex nature of evolution process using multiple evolutionary trees

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Evolution of living organism is combination of highly complicated processes involving modification of various features such as appearance, metabolism and sensing systems. In spite of complex process of evolution, traditional evolutionary analyses can only estimate single aspect of it. In this paper, three evolutionary trees were constructed based on two-component system contents, metabolic network contents and 16S rRNA sequences. Then integrated analyses of trees were carried out to understand various aspects of evolution process. The results showed that integrated analysis can give new insight into bacterial evolution study.

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