The Phylogenetic Handbook
Second Edition

*The Phylogenetic Handbook* provides a comprehensive introduction to theory and practice of nucleotide and protein phylogenetic analysis. This second edition includes seven new chapters, covering topics such as Bayesian inference, tree topology testing, and the impact of recombination on phylogenies. The book has a stronger focus on hypothesis testing than the previous edition, with more extensive discussions on recombination analysis, detecting molecular adaptation and genealogy-based population genetics. Many chapters include elaborate practical sections, which have been updated to introduce the reader to the most recent versions of sequence analysis and phylogeny software, including **BLAST**, **FASTA**, **CLUSTAL**, **T-COFFEE**, **MUSCLE**, **DAMBE**, **TREE-PUZZLE**, **PHYLIP**, **MEGA4**, **PAUP***, **IQPNNI**, **CONSEL**, **MODELTEST**, **PROTEST**, **PAML**, **HYPHY**, **MRBAYES**, **BEAST**, **LAMARC**, **SPLITSREE**, and **RDP3**. Many analysis tools are described by their original authors, resulting in clear explanations that constitute an ideal teaching guide for advanced-level undergraduate and graduate students.

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