

Interactive Visual Comparison of Multiple Phylogenies

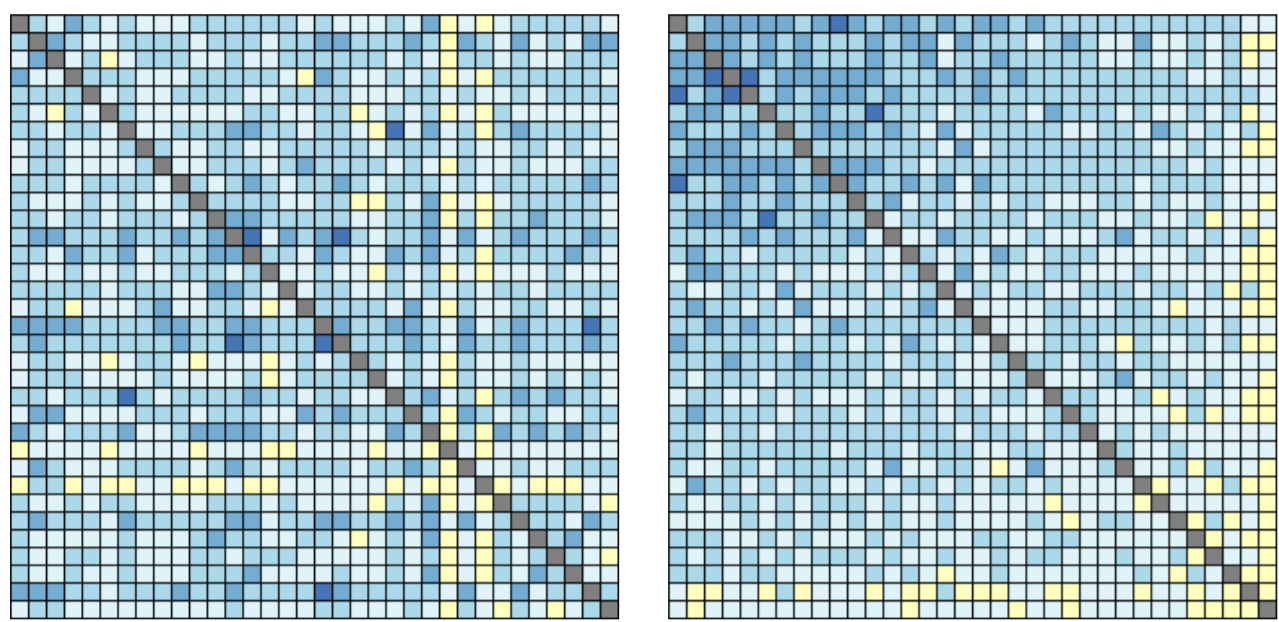
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Matrix View



- Comparison on a global level
- Selection of reference tree
- Sorting according to similarity

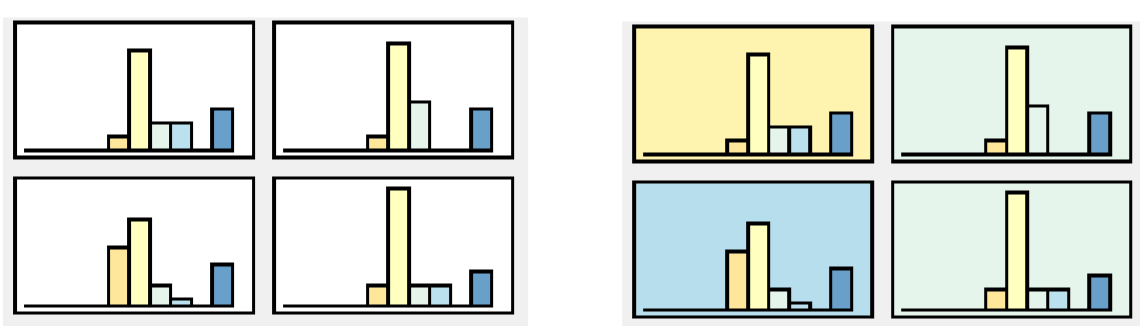
ViPhy

- ❖ Comparative analysis of multiple trees
- ❖ New similarity score considering tree structure
- ❖ Interactive visualization with multiple levels of abstraction

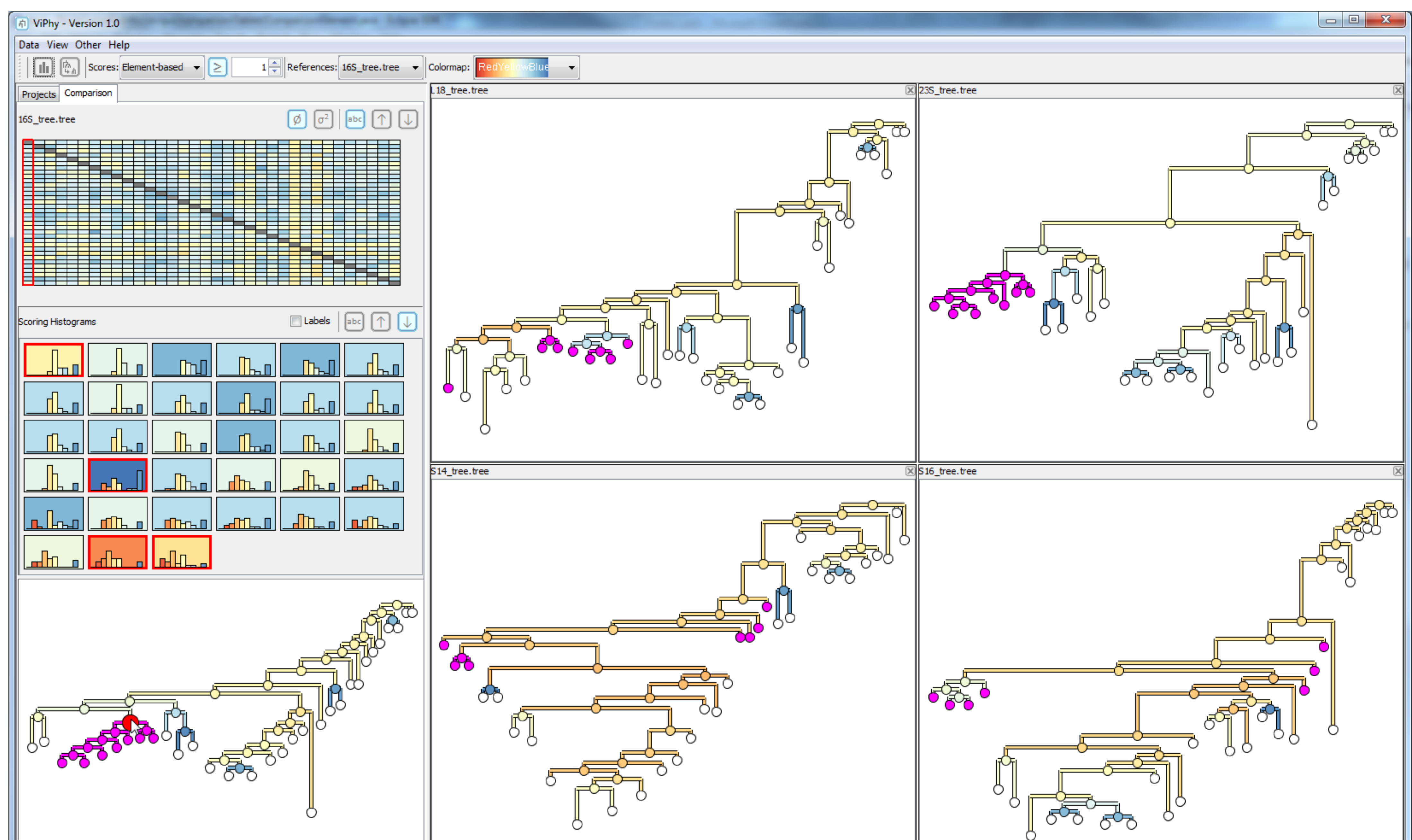
Tasks

- Identification of similarities and differences among different trees
- Determination of stable and reliable phylogenetic relationships

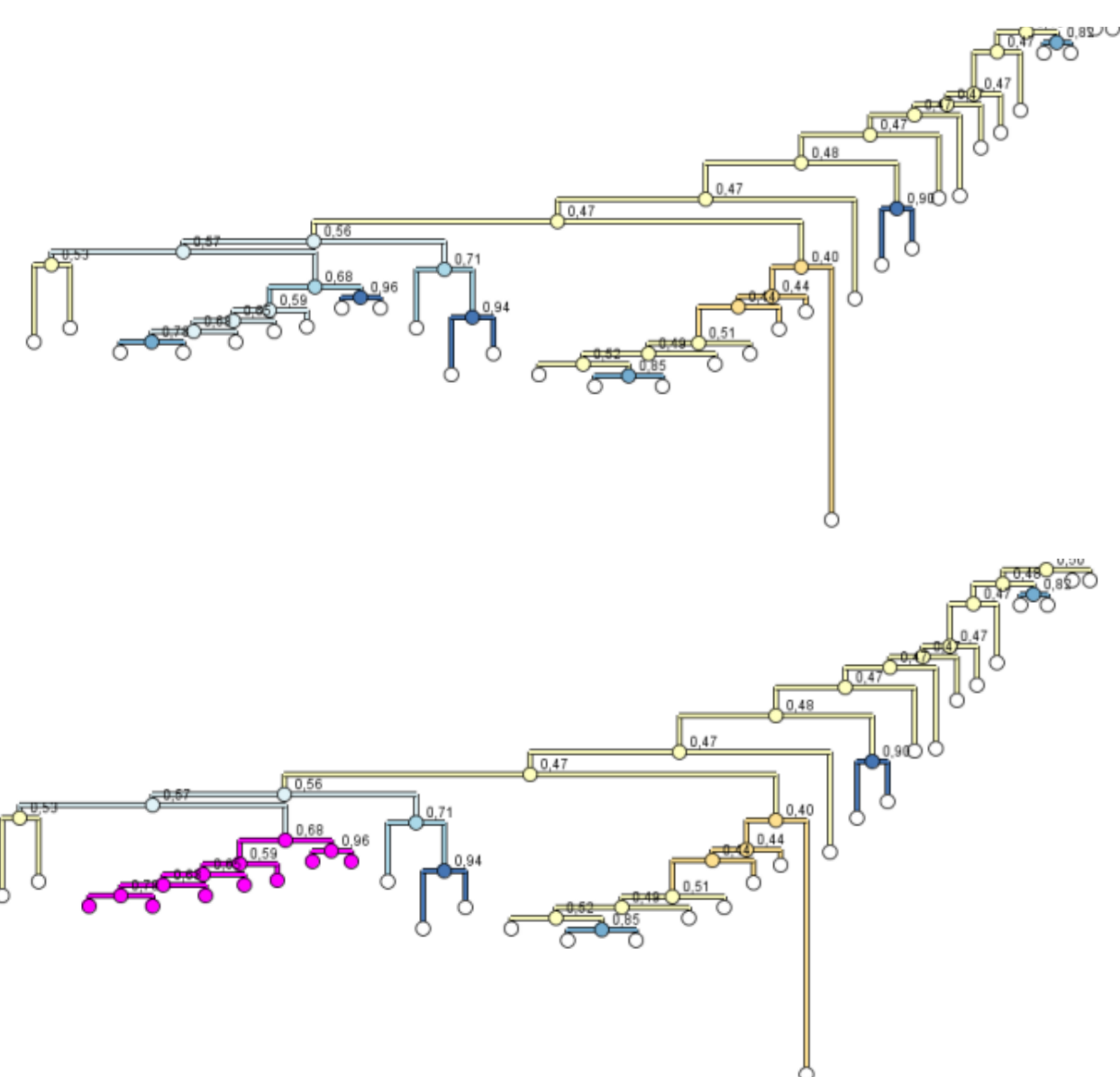
Histogram



- Compact comparison of all trees with selected reference
- Distribution of node scores
- Background color according to the score of the selected reference subtree

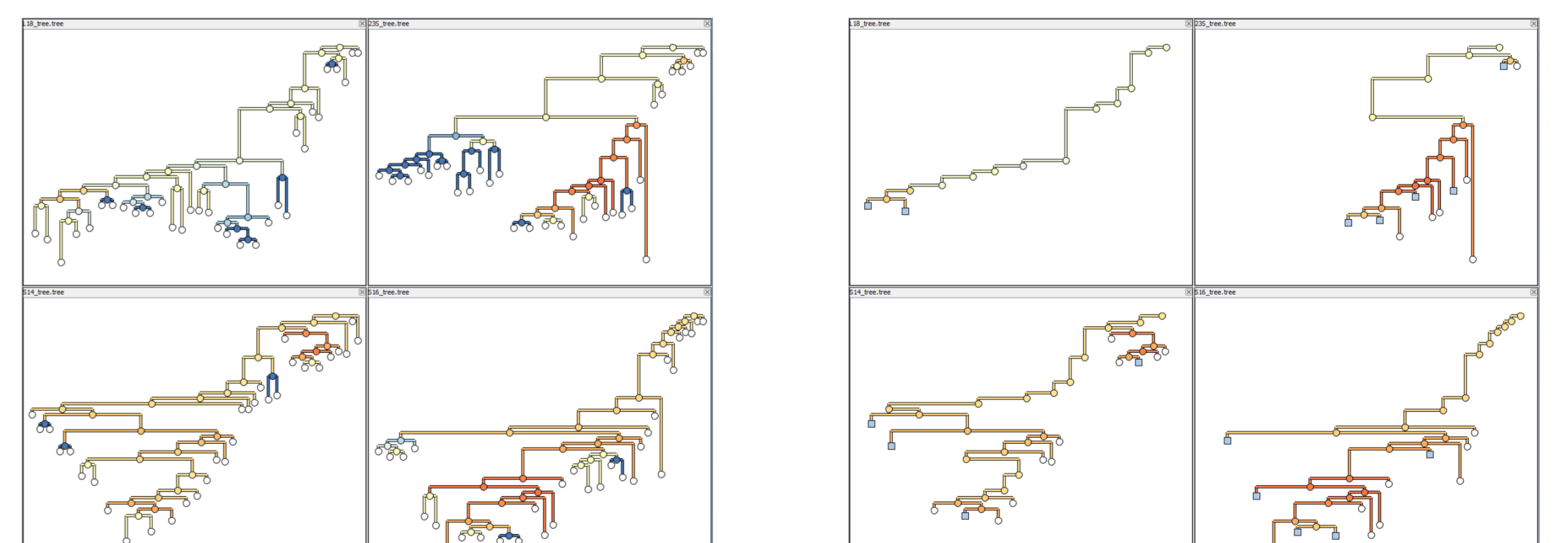


Consensus Tree



- Detailed visualization of selected reference tree
- Color represents the average similarity of each node throughout the dataset
- Fast identification of conserved substructures
- Selection of reference subtree

Side-by-Side Comparison



- Multiple linked views
- Filtering for similar and dissimilar substructures

Future Work

- Explore effects of different algorithms and parameters for the construction of phylogenetic trees
- Evaluation of tree re-rooting
- Provide more scalability regarding number and size of the trees

Acknowledgments

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