

# Propositions

accompanying the dissertation

## REARRANGING PHYLOGENETIC NETWORKS

by

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1. This thesis should not have been necessary.
2. Phylogenetic data display networks (e.g., split networks) should no longer be used.
3. Artificial life will play a vital role in testing phylogenetic reconstruction methods.
4. The class of temporal networks is inspired by biology, but not biologically relevant.
5. NP-hard problems can be converted into puzzle games as useful investigative tools.
6. PhD students should get a flight budget: a maximum number of kilometres they are allowed to fly for work.
7. References to documents that are not yet available should not be accepted in a scientific article.

The following propositions pertain to the subject of this thesis.

8. The problem of computing head move distances within tier-1 is NP-hard.
9. The “isomorphism building approach” for finding rSPR sequences between phylogenetic networks can be modified to work for multi-rooted internally labeled phylogenetic networks as well.
10. Using a bottom-up isomorphism building approach for head moves will produce better upper bounds than the implemented top-down approach.

These propositions are regarded as opposable and defensible, and have been approved as such by the promotor Prof.dr.ir. K.I. Aardal and copromotor Dr.ir. L.J.J. van Iersel.