

Two ideas are presented.

First, new proofs show that a subset of algorithms can have identical performance over a subset of functions, even when the subset of functions is not closed under permutation.

We refer to these as focused sets.

In some cases focused sets correspond to the orbit of a permutation group; in other cases, the focused sets must be computed heuristically. In the smallest case, two algorithms can have identical performance over just two functions in a focused set.

These results particularly exploit the case where search is limited to  $m$  steps, where  $m$  is significantly smaller than the size of the search space.

These proofs emphasize the need for search algorithms

to understand and exploit problem structure.

Second, the problem structure of elementary landscapes is reviewed, particularly for the Traveling Salesman Problem. These results suggest that current algorithms may not adequately (or at least explicitly) exploiting all of the available problem structure.