Game Tree Searching by Min/Max Approach:

This paper presented a new technique in game search tree which performs better than alpha-beta pruning. Paper presented a novel approach by using generalized mean value operators. This paper presented an approach to expand which node next. It is experimented over 1000 games all results show that this is superior method than alpha-beta pruning.

Paper presents us to use generalized means which is more suitable for sensitivity analysis. By using the generalized mean, we can identify the leaf node on which root depends strongly.

Paper introduced an improved approach to general iterative deepening. In iterative deepening, the main disadvantage is to find which node to expand. It presented an approach called penalty based iterative heuristics where each edge of tree which are bad are penalized with negative weights than good moves. The penalty of tip is the sum of all nodes till the leaf and the tip which has less penalty is picked. Here the ide to expand the tip which has the least penalty.

In searching min/max approximation the penalties are determined based on derivates of approximating functions. We expand the node tip which has less penalty.

In this paper, they presented a new approach called reverse approximation. In the reverse approximation method, the computation of generalized mean values is skipped and the approximate min and max values are used instead. The paper explains that, since, the generalized mean values are used for the approximation of the min and max values, using the approximate min and max values anyway is fine and may not introduce much error.