

In the present work we study non-uniform methods for searching game trees of two player games with perfect information. Particularly the non-uniformity based on threats as realized in lambda search and dual-lambda search algorithms is investigated. Threats, defined as such attack moves that if followed by a pass from the defender result in his certain loss, allow for a reduction of the search space while guaranteeing correctness at the same time. The work then describes a new method for construction of so called relevancy zones, a list of moves or places on the game desk that can only have influence on the result of the problem in question. Using these zones it is possible to speed up the mentioned algorithms considerably. In the work there are also described three games, AtariGo, Hex and Go-Moku, and their appropriateness with respect to the studied methods is analyzed. Part of the work is also an implementation of the methods for these games using known techniques (transposition tables, history heuristic).