

1086-68-1532

Andrey Rukhin* (andrey.rukhin@navy.mil), NSWC-DD, Dahlgren, VA 22448-5161. *Heuristics in the p -post Tower of Hanoi Problem.*

New heuristics for search are introduced for the p -post ($p \geq 3$) Tower of Hanoi problem. This method, based on two results covered in the talk, may 1. prune the potential search space and 2. given a sequence connecting two arbitrary configurations, reduce the number of moves required to connect the configurations. Recent efforts have conducted other heuristic-based searches of the state space of disk configurations with $p = 4$ posts (e.g., Korf and Felner, 2007); the proposed heuristics, which apply for all $p \geq 3$, can be included with these pre-existing approaches to further verify the optimality of the Frame-Stewart solution. (Received September 23, 2012)