1125-VC-1437   **Xin Luo*** (`xluo@crimson.ua.edu`) and **Min Sun**. *Development of Modal Interval Algorithm for Solving Continuous Minimax Problems.*

While there are a large variety of effective methods developed for solving more traditional minimization problems, much less success has been reported in solving the minimax problem. Continuous minimax problems can be applied to engineering, finance and other fields. Miguel Sainz in 2008 proposed a modal interval algorithm based on his semantic extensions to solve continuous minimax problems. We developed an improved algorithm using modal intervals to solve unconstrained continuous minimax problems. A new interval method is introduced by taking advantage of both the original minimax problem and its dual problem(called maxmini problem). The new algorithm is implemented in the framework of separate as well as uniform partitions of the search domain. Various improvement techniques including more bisecting choices, sampling methods and deletion conditions are applied to make the new method more powerful. Preliminary numerical results provide promising evidence of its effectiveness. (Received September 16, 2016)