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Lakmali P Weerasena*, lweeras@g.clemson.edu, and **Banu Soylu** and **Margaret Wiecek**. *An algorithm to approximate the solutions of the multiobjective set covering problem.*

The multiobjective set covering problem (MOSCP) is a challenging multiobjective combinatorial optimization problem. An algorithm is proposed to approximate/compute elements in the solution set of the MOSCP. Unlike other approaches in the literature, the algorithm estimates the cost of each set when constructing a feasible solution to the problem. Numerical experiments are conducted on small and large-sized bi-objective and three-objective set covering problems. The experiments confirm that the proposed algorithm performs well on the MOSCP. (Received January 19, 2016)