Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-05-1353Robert R Rubalcaba* (rubalrr@auburn.edu), Department of Mathematics and Statistics, 221Parker Hall, Auburn University, AL 36849-5310, and Matt Walsh (walshm@ipfw.edu),
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Minimum fractional dominating and maximum fractional packing functions.

Fractional domination and packing in a graph form an unusual pair of dual linear programs, in that the feasible vectors for both LPs have interpretations as functions from the vertices of the graph to the unit interval. The relationships between the solution sets of these dual problems are considered, as well as those of other dual problems in fractional graph theory and domination theory. (Received October 05, 2004)