

Using a difference-of-convex (DC) functions approach to solving stochastic mixed complementarity problems with chance constraints for the players.

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We present both the DC algorithm as well as several examples in chance-constrained programming as well as other deterministic applications to showcase the applicability and success of this new approach. In particular this approach has been successfully applied to solving many deterministic and stochastic mixed complementarity problems (MCPs). MCPs generalize non-cooperative games, the KKT conditions of optimization problems, and many more applications in engineering and economics. See [1] for more details.

[1] Gabriel, S.A., Conejo, A.J., Fuller, J.D., Hobbs, B.F. and Ruiz, C., 2012. Complementarity modeling in energy markets (Vol. 180). Springer Science & Business Media.

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