

Solving Ill-posed Bilevel Programs

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Ill-posed bilevel programs are bilevel optimization problems admitting multiple lower-level solutions for some upper-level parameters. In this talk, we show that the original optimistic version of the problem can be the base to solve all the other models including the pessimistic and standard optimistic problems. Next, we establish an equivalence between this model and a certain set-valued optimization problem, thus simplifying the problem by reducing its level from three to two. Finally, we show how the aforementioned set-valued optimization problem can be solved in practice.