

TITLE: An Efficient Dual Parametrization Method for  
Quadratic Semi-infinite Programming Problems

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ABSTRACT:

The so called dual parameterization method for quadratic semi-infinite programming (SIP) problems is developed recently. A dual parameterization algorithm is also proposed for numerical solution of such problems. In this paper, we present and improved adaptive algorithm for quadratic SIP problems with positive definite objective and multiple linear infinite constraints. In each iteration of the new algorithm, only a quadratic programming problem with a limited dimension and a limited number of constraints is required to solved. Furthermore, convergence result is given. The efficiency of the new algorithm is shown by solving a number of numerical examples.