

A partitioning method for linear and/or linear fractional rank-two programs

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Abstract

Low rank problems are nothing but nonlinear minimization problems over polyhedrons where a transformation of the variables provides an objective function which actually depends on very few variables. These problems are often used in applications, for example in concave quadratic minimization problems, multiobjective/bicriteria programs, location-allocation models, quantitative management science, data envelopment analysis, efficiency analysis and performance measurement. The aim of this talk is to deepen on the study of a solution method, based on a partitioning approach, for some classes of nonconvex problems having a polyhedral feasible region expressed by means of inequality and/or box constraints. The considered objective function is either of the kind $\phi(c^T x + c_0, d^T x + d_0)$ or of the kind $\phi(c^T x + c_0, \frac{d^T x + d_0}{h^T x + h_0})$.

References

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