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Separation of Convex Polyhedral Sets with Column Parameters

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Abstract: Separation is a famous principle and separation properties are important for optimization theory and various applications. In practice, input data are rarely known exactly and it is advisable to deal with parameters. In this article, we are concerned with the basic characteristics (existence, description, stability etc.) of separating hyperplanes of two convex polyhedral sets depending on parameters. We study the case, when parameters are situated in one column of the constraint matrix from the description of the given convex polyhedral set. We provide also a lot of examples carried out on PC.

Keywords: separating hyperplane; parameters; convex polyhedra; solution set; stability set;

AMS Subject Classification: 90C31; 39B82; 52B99;

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