

# SOME NEW VIEWS ON HYPERBOLIC OPTIMIZATION

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## Abstract

In a number of economic problems we need to design optimization mathematical models with linear-fractional (hyperbolic) optimality criteria in the process of solving them. In the present study there are made certain additions to hyperbolic optimization theory. There are drawn properties connected with the specifics of that type of model and are formulated conditions under which there can be answered the question regarding the existence or non-existence of an optimal solution. There are proposed three methods of solving the problem of linear-fractional optimization, whose application is supported by means of suitable examples, and is offered an economic interpretation of the issues laid down in the study.

**Keywords:** *model, hyperbolic optimization, linear-fractional optimization, relative criteria.*