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ANALISA PEMANFAATAN FUNGSI PENALTI PADA KOMPUTASI PENYELESAIAN PERMASALAHAN OPTIMASI NONLINIER

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Abstract

The basis concept of penalty function at the optimum solving problem is changing the constrained problems to the unsconstrained problems by adding a penalty parameter to the objective function of the problems. The addition of penalty parameter will result in increasing the objective function as the limitation is approached. This research conducts an application of solving problem on nonlinear programmer (one of solving problems form) without function penalty inside. The penalty function chosen is Barrier Function, with its variants. Then, this research also conducts an analysis to the solving problems of nonlinear programmer. The research result shows that application function of Barrier Adaptive which is combined with Interior-Point Algorithm has a better result and time computation than other Barrier functions.

Key words: Nonlinear Programmer problems, Penalty Function, Barrier Function, Interior-Point Algorithm.