

New technique for determining search directions for interior-point algorithms

Takács Petra-Renáta

19.10.2017

Abstract

In this presentation I will introduce an interior-point algorithm for linear optimization which is based on a new method for determining search directions. Hence, the search directions are obtained by applying a new algebraic transformation on the system which defines the central path. The polynomial complexity of the interior-point algorithm will be also proved. Beside these, I will speak about the possibility of extending this method to symmetric optimization problems. Moreover, I will present some future research plans.