

论文

## A MODIFIED HOMOGENEOUS AND SELF-DUAL LINEAR PROGRAMMING ALGORITHM

GUO Tiande(1), WU Shiquan(2)

(1)Mathematics Department,Qufu Normal University, Qufu 273165,China;(2)Institute of Applied Mathematics,Academia Sinia, Beijing 100080, China

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** In this paper,we modify the corrector step of the homogeneous and self-dual linear programming algorithm, proposed by Ye, Todd and Mizuno[1]. The duality gap is reduced by a constant fraction per iteration. It is shown that our modified algorithm retains the  $O(\sqrt{n}L)$  iteration complexity and the duality gap converges to zero.

**关键词** [Linear programming](#), [interior point algor](#)

分类号

## A MODIFIED HOMOGENEOUS AND SELF-DUAL LINEAR PROGRAMMING ALGORITHM

GUO Tiande(1),WU Shiquan(2)

(1)Mathematics Department,Qufu Normal University, Qufu 273165,China;(2)Institute of Applied Mathematics,Academia Sinia, Beijing 100080, China

**Abstract** In this paper,we modify the corrector step of the homogeneous and self-dual linear programming algorithm, proposed by Ye, Todd and Mizuno[1]. The duality gap is reduced by a constant fraction per iteration. It is shown that our modified algorithm retains the  $O(\sqrt{n}L)$  iteration complexity and the duality gap converges to zero.

**Key words** [Linear programming](#), [interior point algorithms](#), [homogeneity](#), [self-dual](#)

DOI:

通讯作者

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中 包含 “\[Linear programming, interior point algor\]\(#\)”的 相关文章](#)
- ▶ [本文作者相关文章](#)
- [GUO Tiande](#)
- [WU Shiquan](#)