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## 人工智能及识别技术

### 秘书问题中聘用双方策略研究

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**摘要:** 秘书问题是一类概率最优化问题, 鉴于现实应用中其理论最优策略缺乏可操作性, 而传统启发式策略仅关注阈值确定, 不涉及阈值和标杆关系的定量分析。为此, 推导“截止阀法则”中阈值与标杆的最优组合关系, 提出一种“三分决策法”聘用策略, 以总量的1/3为样本, 并以1号~3号标杆为参照选取目标, 运用多主体系统的建模方法, 对应聘策略进行分等级讨论, 分析2种不同竞争模式下, 优劣各异的应聘者在应聘队列中最大化录用概率。应用结果表明, 该策略简便易行, 且有效性能达到最优理论解性能的95%以上。

**关键词:** 秘书问题 截止阀法则 适应性主体 多主体系统

### Research on Employing Both Parties Strategy in Secretary Problem

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**Abstract:** Secretary Problem(SP) is a kind of probabilistic optimization problem. The best theoretical solution is lack of operability in practice, and heuristic strategies only concern the threshold, without quantitative analysis of the relationship between the threshold and the benchmark. This paper deduces the optimal combination of threshold and benchmark in cutoff rule, and puts forward a simply and practical strategy—trichotomy, which taking the first one-third of the applicants as the sample set with a benchmark of the first to the third one to search the rest of the applicants. Based on Multi-Agent System(MAS) modeling, discusses which position among applicants queue is best for every grade to maximize his probability of being employed. Application result shows that the strategy is simple and easy to operation, its performance reaches 95% of the optimization resolution.

**Keywords:** Secretary Problem(SP) cutoff rule adaptive Agent Multi-Agent System(MAS)

收稿日期 2011-07-18 修回日期 网络版发布日期 2012-02-05

DOI: 10.3969/j.issn.1000-3428.2012.03.064



基金项目:

通讯作者:

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