

# Yao Cheng

## *Presentation Title*

### **Stable Doctor-Hospital Matching Mechanisms under Distributional and Hierarchical Constraints**

(with Zaifu Yang)

## *Abstract*

Motivated by the Chinese doctors and hospitals matching problem, we introduce a general two-sided matching model with both distributional and hierarchical constraints. For instance, in the doctor-hospital matching, every hospital faces both floor and ceiling constraints, each region has also to meet floor and ceiling constraints on the number of doctors, and hospitals have hierarchical or priority structures in their hiring. We investigate how to assign doctors to hospitals in a fair, efficient and stable way. We propose two algorithms for finding such solutions.

## *Keywords*

Stability, Distributional constraints, Matching

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