

## RESEARCH — Minimum Spanning Tree Rotation Transforms

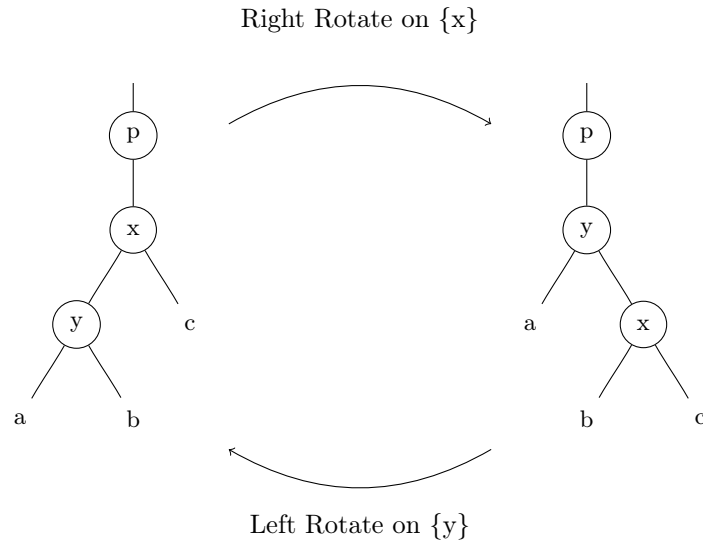
### Preface

The premise of this paper is to derive an algorithm that finds the minimum number of right and left rotations that transforms one Binary Search Tree into a transformed version (Same nodes, different structure)

### Background and Assumptions

For the sake of simplification, any values in the binary search tree will be values in  $\mathbb{Z}$ , and will use standard ordering. While there may be an additional proof [?] about finding the minimum number of rotations given duplicate elements in the trees, for this problem we will consider duplicates to be invalid.

The right and left rotations will be performed as followed:



*Submitted by Natalie Chmura on April 27, 2024.*